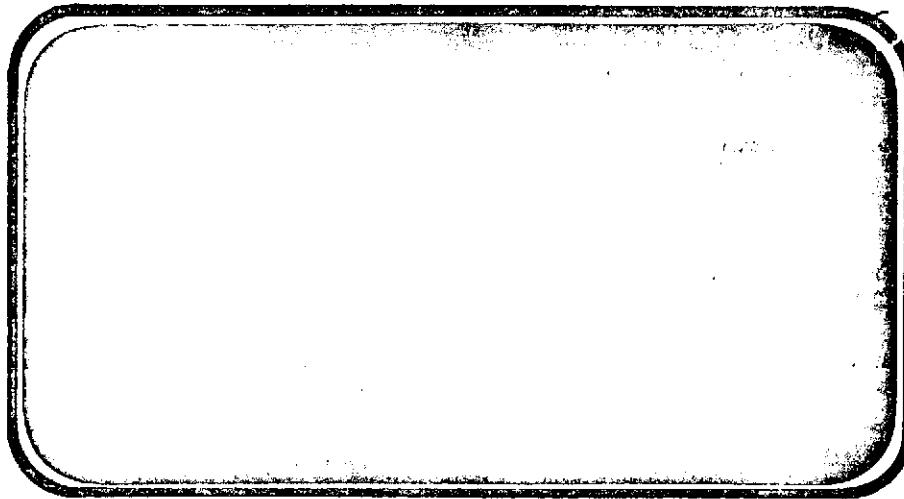


2004



# NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

CR 134225



(NASA-CR-134225) PHASE C  
AEROTHERMODYNAMIC DATA BASE (Chrysler  
Corp.) 82 P HC \$7.25  
84 CSCL 22B

N74-20555

G3/31 Unclassified  
34753

SPACE SHUTTLE

AEROTHERMODYNAMIC DATA REPORT

JOHNSON SPACE CENTER  
HOUSTON, TEXAS

DATA MANAGEMENT SERVICES  
SPACE DIVISION  CHRYSLER  
CORPORATION

February 10, 1974

DMS-DFR-2012

PHASE C

AEROTHERMODYNAMIC

DATA BASE

MONTHLY

DATA FILE CONTENTS REPORT

Prepared under NASA Contract Number NAS9-13247

By

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National Aeronautics and Space Administration  
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This document has been reviewed and is approved for release.

~~For~~ N. D. Kemp  
Data Management Services

J. S. Blynn

## TABLE OF CONTENTS

### PARAGRAPH

|       |   |
|-------|---|
|       | SECTION 1.0                                     |
|       | INTRODUCTION                                    |
|       | SECTION 2.0                                     |
|       | DESCRIPTION OF DATA BASE RECORDS                |
| 2.1   | BASELINE CONFIGURATION DESIGNATIONS             |
| 2.2   | SUMMARY DATA REPORTS                            |
| 2.3   | DATA FILE REPORT DIGEST                         |
| 2.4.1 | WIND TUNNEL TEST/SADSAC DATA PROCESSING SUMMARY |
| 2.4.2 | SPACE SHUTTLE FACILITY WIND TUNNEL SUMMARY      |
|       | DISTRIBUTION FOR FILE CONTENTS REPORT           |

## LIST OF TABLES

| <u>TABLE<br/>NUMBER</u> | <u>TITLE</u>                                    |
|-------------------------|---|
| 1.2-1                   | Summary of DMS Data Base Records                |
| 2.1-1                   | Baseline Configuration Definitions              |
| 2.2-1                   | Summary Data Reports Listing                    |
| 2.3-1                   | Data File Report Digest                         |
| 2.4.1-1                 | Wind Tunnel Test/SADSAC Data Processing Summary |
| 2.4.2-1                 | Space Shuttle Facility Wind Tunnel Summary      |

## 1.0 INTRODUCTION

Space Shuttle aerothermodynamic data, collected from an ongoing series of wind tunnel tests, are permanently stored with DMS data management system. In addition, information pertaining to current baseline configuration definition is also maintained in the DMS system. This report presents summary listings of published documentation of SADSAC processed data arranged chronologically and by Shuttle configuration.

The purpose of this report is to provide an up-to-date record of all applicable aerothermodynamic data collected, processed, or summarized in the course of the Space Shuttle program. The various tables or listings are designed to provide survey information to the various Space Shuttle managerial and technical levels. In Table 1.2-1, the various listings of the Shuttle test data information, the list contents, and the purpose are described.

Table 1.2-1 SUMMARY OF DMS DATA BASE RECORDS

| <u>Item</u>             | <u>Contents</u>   | <u>Purpose</u>   |
|-------------------------|---|--|
| Baseline Configurations | List of various shuttle configurations designated as reference or baseline          | Current baseline configuration reference                               |
| Summary Reports         | List of DMS reports presenting results of data analysis or refinements              | Index of Shuttle aerothermo design data reports                        |
| Data File Report Digest | Compilation of Shuttle tests into operational status and basic configuration groups | Information on tests DMS processed or in process arranged by vehicle   |
| Wind Tunnel Test/DMS    | Table of Shuttle tests for which results have been incorporated into DMS data base  | Reference of Shuttle test data in DMS data base in chronological order |

2.0 DESCRIPTION OF DATA BASE RECORDS

2.1 BASELINE CONFIGURATION DESIGNATIONS

Particular space shuttle configurations designated as baseline or reference configurations are listed in this report. These lists present the baseline configuration descriptions, related test information, DMS 2-character identifier, and associated documentary information.

2.2 SUMMARY DATA REPORTS

Summary data reports are differentiated from data reports in that data reports present basic wind tunnel data as collected. Summary reports generally will contain data germane to a particular design application of the basic aerothermo test data. Summary reports will range from basic data reports of edited or refined data to reports presenting gleanings from basic data reports.

The listing of summary reports will contain DMS generated documents.

2.3 DATA FILE REPORT DIGEST

The data file digest provides a compilation of all information in the SADSAC system into three basic categories:

- 1) Recently published reports - current month plus previous month
- 2) Tests in process
- 3) Published reports

Within each section, the tests are again subdivided into general configuration categories:

- 1) Booster Data
- 2) Orbiter Data
- 3) Booster/Orbiter Data

Information provided on each test is as follows:

- 1) DMS Report Number
- 2) NASA Series Number
- 3) NASA CR Number
- 4) NASA TM-X Number
- 5) Dataset 2-Character Descriptor
- 6) Configuration (specific)
- 7) Test Number

#### 2.4.1 WIND TUNNEL TEST/SADSAC DATA PROCESSING CHRONOLOGICAL SUMMARY

Space Shuttle related wind tunnel test data incorporated into the DMS data base are listed by DMS report number in the processing summary. The purpose of this summary will be to provide a source collection of test particulars to guide users in the evaluation or categorization of available data. The test data summary will contain the following information.

- 1) Test Facility
- 2) Test identification
- 3) Configurations tested
- 4) Purpose of test
- 5) Type of test
- 6) Model scale

- 7) Test Mach number range
- 8) Testing agency
- 9) Cognizant test/DMS personnel
- 10) Basic publication numbers

#### 2.4.2 SPACE SHUTTLE FACILITY WIND TUNNEL SUMMARY

Numerous wind tunnel facilities are being employed in the testing of space shuttle configurations. The purpose of this summary will be to provide users a collection of tests documented, or in process, grouped by facility. This summary will contain the following information:

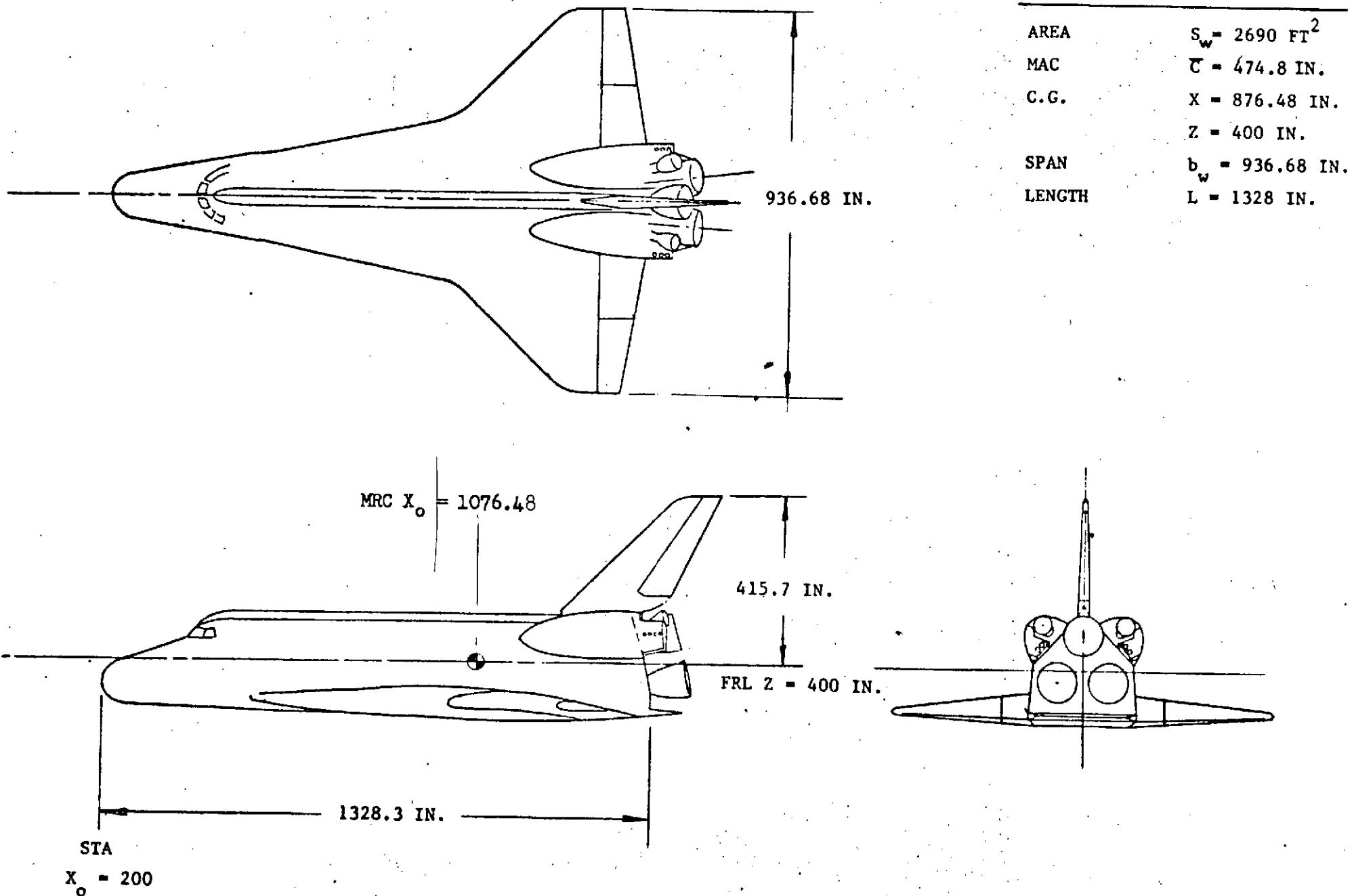
- a) Two-character Test Code
- b) Facility
- c) Tunnel
- d) Test No.
- e) NASA Series No.
- f) DMS Report No.

TABLE 2.1-1 BASELINE CONFIGURATION DEFINITIONS

**BASELINE CONFIGURATION**

**DESIGNATIONS**

**2.1-1.1**



SSV ORBITER 2A CONFIGURATION BASELINE

TABLE 2.2-1. SUMMARY DATA REPORTS LISTING  
(NO DATA AVAILABLE AT PRESENT)

TABLE 2.3-1 DATA FILE REPORT DIGEST

INDEX OF RECENT PUBLICATIONS  
DECEMBER / JANUARY

ORBITER DATA

| DMS<br>DMS-DR- | NASA<br>SERIES<br>NUMBER | NASA<br>CR<br>NUMBER | NASA<br>TM-X<br>NUMBER | CONFIGURATION                 | TEST NUMBER  | DATASET<br>2-CHARACTER<br>DESCRIPTOR |
|----------------|--------------------------|----------------------|------------------------|-------------------------------|--|--------------------------------------|
| 2053<br>V-01   | OA21A<br>12              | 8,792                |                        | ORBITER 3                     | NRLAD -<br>LOW SPEED WIND TUNNEL<br>705  | DP                                   |
| 2061           | OA68                     | 128,789              |                        | VL7D-000147B (MODEL NO. 49-0) | NRLAD -<br>7-FOOT TRISONIC WIND TUNNEL<br>276                                    | DR                                   |
| 2061           | OA68                     | 128,789              |                        | VL7D-000139B (MODEL NO. 42-0) | NRLAD -<br>7-FOOT TRISONIC WIND TUNNEL<br>276                                    | DR                                   |
| 2069           | MA7                      | 134,074              |                        | PRR ORBITER                   | LARC -<br>UNITARY PLAN WIND TUNNEL<br>1031                                       | PM                                   |
| 2082           | OA73                     | 128,800              |                        | CONFIGURATION 3A ORBITER      | ARC -<br>3.5-FOOT HYPERSONIC WIND TUNNEL<br>167                                  | BS                                   |
| 2101           | CH42A<br>CH42B<br>CH42C  | 134,076              |                        | B17C7M4F5W103E22V7R5          | LARC -<br>MACH 8 VARIABLE-DENSITY HYPERSONIC<br>TUNNEL<br>4180/4105<br>4130/4193 | PA                                   |

INDEX OF RECENT PUBLICATIONS  
DECEMBER / JANUARY

INTEGRATED VEHICLE DATA

| DMS<br>DMS-DR- | NASA<br>SERIES<br>NUMBER | NASA<br>CR<br>NUMBER | NASA<br>TM-X<br>NUMBER | CONFIGURATION | TEST NUMBER  | DATASET<br>2-CHARACTER<br>DESCRIPTOR |
|----------------|--------------------------|----------------------|------------------------|---------------|--|--------------------------------------|
| 2032<br>V-04   | IA9<br>OA12              | 128,794              |                        | 17-OTS        | ARC<br>11-FOOT TRANSONIC WIND TUNNEL (UNITARY)<br>8-FOOT BY 7-FOOT SUPERSONIC WIND TUNNEL (UNITARY)<br>707 | B-                                   |
| 2032<br>V-05   | IA9<br>OA12              | 128,794              |                        | 17-OTS        | ARC<br>11-FOOT TRANSONIC WIND TUNNEL (UNITARY)<br>8-FOOT BY 7-FOOT SUPERSONIC WIND TUNNEL (UNITARY)<br>707 | B-                                   |
| 2032<br>V-06   | IA9<br>OA12              | 128,794              |                        | 17-OTS        | ARC<br>11-FOOT TRANSONIC WIND TUNNEL (UNITARY)<br>8-FOOT BY 7-FOOT SUPERSONIC WIND TUNNEL (UNITARY)<br>707 | B-                                   |
| 2032<br>V-07   | IA9<br>OA12              | 128,794              |                        | 17-OTS        | ARC<br>11-FOOT TRANSONIC WIND TUNNEL (UNITARY)<br>8-FOOT BY 7-FOOT SUPERSONIC WIND TUNNEL (UNITARY)<br>707 | B-                                   |
| 2032<br>V-08   | IA9<br>OA12              | 128,794              |                        | 17-OTS        | ARC<br>11-FOOT TRANSONIC WIND TUNNEL (UNITARY)<br>8-FOOT BY 7-FOOT SUPERSONIC WIND TUNNEL (UNITARY)<br>707 | B-                                   |

INDEX OF RECENT PUBLICATIONS  
DECEMBER / JANUARY

INTEGRATED VEHICLE DATA

| DMS<br>DMS-DR- | NASA<br>SERIES<br>NUMBER | NASA<br>CR<br>NUMBER | NASA<br>TM-X<br>NUMBER | CONFIGURATION | TEST NUMBER  | DATASET<br>2-CHARACTER<br>DESCRIPTOR |
|----------------|--------------------------|----------------------|------------------------|---------------|--|--------------------------------------|
| 2032<br>V-09   | IA9<br>OA12              |                      | 128,794                | 17-OTS        | ARC<br>11-FOOT TRANSONIC WIND TUNNEL (UNITARY)<br>8-FOOT BY 7-FOOT SUPERSONIC WIND TUNNEL (UNITARY)<br>707 | B-                                   |
| 2032<br>V-10   | IA9<br>OA12              |                      | 128,794                | 17-OTS        | ARC<br>11-FOOT TRANSONIC WIND TUNNEL (UNITARY)<br>8-FOOT BY 7-FOOT SUPERSONIC WIND TUNNEL (UNITARY)<br>707 | B-                                   |
| 2032<br>V-11   | IA9<br>OA12              |                      | 128,794                | 17-OTS        | ARC<br>11-FOOT TRANSONIC WIND TUNNEL (UNITARY)<br>8-FOOT BY 7-FOOT SUPERSONIC WIND TUNNEL (UNITARY)<br>707 | B-                                   |
| 2032<br>V-12   | IA9<br>OA12              |                      | 128,794                | 17-OTS        | ARC<br>11-FOOT TRANSONIC WIND TUNNEL (UNITARY)<br>8-FOOT BY 7-FOOT SUPERSONIC WIND TUNNEL (UNITARY)<br>707 | B-                                   |

## INDEX OF WORK IN PROCESS

## BOOSTER DATA

| DMS<br>DMS-DR- | NASA<br>SERIES<br>NUMBER | NASA<br>CR<br>NUMBER | NASA<br>TM-X<br>NUMBER | CONFIGURATION                 | TEST NUMBER   | DATASET<br>2-CHARACTER<br>DESCRIPTOR |
|----------------|--------------------------|----------------------|------------------------|-------------------------------|---|--------------------------------------|
| 2086           | SA2F                     |                      |                        | 142-INCH SOLID ROCKET BOOSTER | LARC -<br>8-FOOT TRANSONIC PRESSURE TUNNEL -<br>655 | FS                                   |

## INDEX OF WORK IN PROCESS

## ORBITER DATA

| DMS<br>DMS-DR- | NASA<br>SERIES<br>NUMBER | NASA<br>CR<br>NUMBER | NASA<br>TM-X<br>NUMBER | CONFIGURATION                    | TEST NUMBER                                      | DATASET<br>2-CHARACTER<br>DESCRIPTOR |
|----------------|--------------------------|----------------------|------------------------|----------------------------------|--|--------------------------------------|
| 2038           | OA16                     | 128,793              |                        | NR ORBITER                       | NRLAD -<br>LOW SPEED WIND TUNNEL<br>701          | DN                                   |
| 2033<br>V-02   | OA21A<br>12              | 8,792                |                        | ORBITER 3                        | NRLAD -<br>LOW SPEED WIND TUNNEL<br>705          | DP                                   |
| 2037           | OA44                     |                      |                        | ORBITER, MODIFIED 2A,3           | LARC -<br>UNITARY PLAN WIND TUNNEL<br>1035       | PN                                   |
| 2058           | OA17                     |                      |                        | ORBITER NAR VL70-000134B CONFIG. | LARC -<br>LOW-TURBULENCE PRESSURE TUNNEL<br>138  | PP                                   |
| 2039           | OA11B                    | 128,798              |                        | ORBITER 2A                       | ARC -<br>3.5-FOOT HYPERSONIC WIND TUNNEL<br>160  | BX                                   |
| 2060           | OA36                     |                      |                        | ORBITER 3,A                      | ARC -<br>3.5-FOOT HYPERSONIC WIND TUNNEL<br>163  | BY                                   |
| 2064           | TA36                     |                      |                        | ORBITER, MODIFIED 2A,3           | CAL -<br>8-FOOT TRANSONIC WIND TUNNEL<br>T14-053 | UF                                   |
| 2066           | OA71A                    | 128,797              |                        | -898(2A) ORBITER                 | NRLAD -<br>LOW SPEED WIND TUNNEL<br>708          | DS                                   |
| 2071           | OA23                     | 128,799              |                        | MODEL 49-0                       | ARC -<br>3.5-FOOT HYPERSONIC WIND TUNNEL<br>168  | 86                                   |
| 2071           | OA23                     | 128,799              |                        | MODEL 32-0                       | ARC -<br>3.5-FOOT HYPERSONIC WIND TUNNEL<br>168  | 86                                   |

## INDEX OF WORK IN PROCESS

## ORBITER DATA

| DHS<br>DHS-DR- | NASA<br>SERIES<br>NUMBER | NASA<br>CR<br>NUMBER | NASA<br>TM-X<br>NUMBER | CONFIGURATION   | TEST NUMBER  | DATASET<br>2-CHARACTER<br>DESCRIPTOR |
|----------------|--------------------------|----------------------|------------------------|---|--|--------------------------------------|
| 2073           | OA70                     | 134,070              |                        | MODEL 42-0 OF THE VL70-0001398 SSV<br>ORBITER CONFIGURATION 3 | LARC -<br>UNITARY PLAN WIND TUNNEL<br>1043   | PV                                   |
| 2074           | OA57A                    |                      |                        | -89B SPACE SHUTTLE ORBITER FERRY C<br>ONFIGURATION            | NRLAD -<br>LOW SPEED WIND TUNNEL<br>709  | DT                                   |
| 2077           | IA29<br>OA63             |                      |                        |   | ARC -<br>6-FOOT BY 6-FOOT SUPERSONIC WIND T<br>UNNEL<br>630  | EB                                   |
| 2079           | LA15                     |                      |                        | 089B-139B (MODIFIED NOSE)                                     | LARC -<br>20-INCH HYPERSONIC TUNNEL (MACH 6) -<br>441  | PH                                   |
| 2080           | OA75B                    |                      |                        | -89B SPACE SHUTTLE ORBITER FERRY C<br>ONFIGURATION            | NRLAD -<br>LOW SPEED WIND TUNNEL<br>713  | DV                                   |
| 2081           | OA69                     |                      |                        | -140 A/B SPACE SHUTTLE ORBITER                                | NRLAD -<br>LOW SPEED WIND TUNNEL<br>711  | DQ                                   |
| 2083           | OA20                     |                      |                        | SSV 140A/B ORBITER  | LARC -<br>UNITARY PLAN WIND TUNNEL<br>1057   | Q2                                   |
| 2084           | IA14A                    |                      |                        | SPACE SHUTTLE PRESSURE LOADS MODEL<br>47-OTS                  | ARC -<br>11-FOOT TRANSONIC WIND TUNNEL (UNI<br>TARY)<br>716<br>9-FOOT BY 7-FOOT SUPERSONIC WIND T<br>UNNEL (UNITARY) | B1                                   |
| 2085           | CH10<br>IH2              |                      |                        |   | ARC -<br>3.5-FOOT HYPERSONIC WIND TUNNEL<br>171  | B9                                   |

## INDEX OF WORK IN PROCESS

## ORBITER DATA

| DMS<br>DMS-DR- | NASA<br>SERIES<br>NUMBER | NASA<br>CR<br>NUMBER | NASA<br>TM-X<br>NUMBER | CONFIGURATION   | TEST NUMBER   | DATASET<br>2-CHARACTER<br>DESCRIPTOR |
|----------------|--------------------------|----------------------|------------------------|---|---|--------------------------------------|
| 2088           | OA71C                    |                      |                        | -89B ORBITER  | ARC -<br>LOW SPEED WIND TUNNEL<br>712                 | DU                                   |
| 2091           | LA78                     |                      |                        | LO-100 ORBITER  | LARC -<br>8-FOOT TRANSONIC PRESSURE TUNNEL<br>657/660 | P5                                   |
| 2094           | OS1                      | 134,073              |                        | BASIC WING AND 11 HZ INBD AND 13.5<br>HZ OUTBD ELEVON ROTATIONAL FREQ | LARC -<br>26-INCH TRANSONIC BLOWDOWN TUNNEL<br>545    | QT                                   |
| 2100           | CH3A<br>CH3B             | 134,075              |                        |   | AEDC -<br>HYPERSONIC WIND TUNNEL (B)<br>VA289         | TM                                   |
| 2102           | IA15                     |                      |                        | OT+L+P1+A1+F  | ARC -<br>3.5-FOOT HYPERSONIC WIND TUNNEL<br>175       | EG                                   |
| 2116           | OA91                     |                      |                        | B19C7F5J59W107E23V7R5X20 + NACELLE<br>RAKES                           | NRLAD -<br>TRISONIC WIND TUNNEL<br>278                | DY                                   |
| 2120           | OA108                    |                      |                        | ORBITER   | LARC -<br>8-FOOT TRANSONIC PRESSURE TUNNEL<br>668     | GZ                                   |
| 2125           | OA88                     |                      |                        | BODY ALONE (-140A/B)  | LARC -<br>7422  | QC                                   |
| 2126           | LA25                     |                      |                        | -139 ORBITER WITH VARIOUS RCS JETS                                    | LARC -<br>CONTINUOUS-FLOW HYPERSONIC TUNNEL<br>100    | PX                                   |
| 2127           | LA35                     |                      |                        | -139 B ORBITER WITH VARIOUS CONTROL<br>DEFLECTIONS                    | LARC -<br>CONTINUOUS-FLOW HYPERSONIC TUNNEL<br>102    | QU                                   |

## INDEX OF WORK IN PROCESS

## ORBITER DATA

| DMS<br>DMS-DR- | NASA<br>SERIES<br>NUMBER | NASA<br>CR<br>NUMBER | NASA<br>TH-X<br>NUMBER | CONFIGURATION         | TEST NUMBER    | DATASET<br>2-CHARACTER<br>DESCRIPTOR |
|----------------|--------------------------|----------------------|------------------------|-----------------------|----------------|--------------------------------------|
| 2130           | OA22A                    |                      |                        | SSV 4 CONFIG MCR 0200 | ARC<br>11-7160 | B3                                   |
| 2131           | OA22B                    |                      |                        | SSV 4 CONFIG MCR 0200 | ARC<br>97-7160 | B4                                   |

## INDEX OF WORK IN PROCESS

## INTEGRATED VEHICLE DATA

| DMS<br>DMS-DR- | NASA<br>SERIES,<br>NUMBER | NASA<br>CR<br>NUMBER | NASA<br>TM-X<br>NUMBER | CONFIGURATION                                      | TEST NUMBER  | DATASET<br>2-CHARACTER<br>DESCRIPTOR |
|----------------|---------------------------|----------------------|------------------------|--|--|--------------------------------------|
| 2013           | IA2                       | 128,762              |                        | SHUTTLE ORBITER/TANK SRM (N-040A)                  | ARC -<br>9-FOOT BY 7-FOOT SUPERSONIC WIND T<br>UNNEL (UNITARY)<br>616  | BJ                                   |
| 2027           | IA32FB                    |                      |                        | ROCKWELL MCR0074 BASELINE ASCENT C<br>ONFIGURATION | MSFC -<br>14-INCH TRISONIC WIND TUNNEL<br>567  | 62                                   |
| 2028           | IA31FB                    |                      |                        | MCR 0074 ORBITER LAUNCH                            | MSFC -<br>14-INCH TRISONIC WIND TUNNEL<br>570  | 83                                   |
| 2032<br>V-13   | IA9<br>OA12               | 128,794              |                        | 17-OTS   | ARC -<br>11-FOOT TRANSONIC WIND TUNNEL (UNI<br>TARY)<br>8-FOOT BY 7-FOOT SUPERSONIC WIND T<br>UNNEL (UNITARY)<br>707 | B-                                   |
| 2032<br>V-14   | IA9<br>OA12               | 128,794              |                        | 17-OTS   | ARC -<br>11-FOOT TRANSONIC WIND TUNNEL (UNI<br>TARY)<br>8-FOOT BY 7-FOOT SUPERSONIC WIND T<br>UNNEL (UNITARY)<br>707 | B-                                   |
| 2032<br>V-15   | IA9<br>OA12               | 128,794              |                        | 17-OTS   | ARC -<br>11-FOOT TRANSONIC WIND TUNNEL (UNI<br>TARY)<br>8-FOOT BY 7-FOOT SUPERSONIC WIND T<br>UNNEL (UNITARY)<br>707 | B-                                   |
| 2032<br>V-16   | IA9<br>OA12               | 128,794              |                        | 17-OTS   | ARC -<br>11-FOOT TRANSONIC WIND TUNNEL (UNI<br>TARY)<br>8-FOOT BY 7-FOOT SUPERSONIC WIND T<br>UNNEL (UNITARY)<br>707 | B-                                   |

## INDEX OF WORK IN PROCESS

## INTEGRATED VEHICLE DATA

| DMS<br>DMS-DR- | NASA<br>SERIES<br>NUMBER | NASA<br>CR<br>NUMBER | NASA<br>TM-X<br>NUMBER | CONFIGURATION  | TEST NUMBER  | DATASET<br>2-CHARACTER<br>DESCRIPTOR |
|----------------|--------------------------|----------------------|------------------------|--|--|--------------------------------------|
| 2032<br>V-17   | IA9<br>OA12              |                      | 128,794                | 17-OTS   | ARC<br>11-FOOT TRANSONIC WIND TUNNEL (UNITARY)<br>8-FOOT BY 7-FOOT SUPERSONIC WIND TUNNEL (UNITARY)<br>707 | B-                                   |
| 2032<br>V-18   | IA9<br>OA12              |                      | 128,794                | 17-OTS   | ARC<br>11-FOOT TRANSONIC WIND TUNNEL (UNITARY)<br>8-FOOT BY 7-FOOT SUPERSONIC WIND TUNNEL (UNITARY)<br>707 | B-                                   |
| 2039           | IA6A                     |                      | 134,071                | MODEL 2A ORBITER AND EXTERNAL TANK   | MSFC<br>14-INCH TRISONIC WIND TUNNEL<br>571  | 85                                   |
| 2046           | IA12B                    |                      |                        | 2A CONFIGURATION   | ARC<br>9-FOOT BY 7-FOOT SUPERSONIC WIND TUNNEL (UNITARY)<br>710  | BV                                   |
| 2062           | IA13                     |                      |                        | 32-OTS   | AEDC<br>SUPERSONIC WIND TUNNEL (A)<br>323  | TJ                                   |
| 2077           | IA29<br>OA63             |                      |                        | SHUTTLE ORBITER/ET/2 SRM<br>SHUTTLE ORBITER VENT PRESSURE MODE<br>L 36-OTS | ARC<br>6-FOOT BY 6-FOOT SUPERSONIC WIND TUNNEL<br>630  | EB                                   |
| 2085           | OH10<br>IH2              |                      |                        | SPACE SHUTTLE INTEGRATED VEHICLE PRESSURE MODEL 26-OTS                     | ARC<br>3.5-FOOT HYPERSONIC WIND TUNNEL<br>171  | B9                                   |
| 2098           | IH15                     |                      |                        |  | ARC<br>3.5-FOOT HYPERSONIC WIND TUNNEL<br>172  | B8                                   |

## INDEX OF WORK IN PROCESS

## INTEGRATED VEHICLE DATA

| DMS<br>DMS-DR- | NASA<br>SERIES<br>NUMBER | NASA<br>CR<br>NUMBER | NASA<br>TH-X<br>NUMBER | CONFIGURATION  | TEST NUMBER                                   | DATASET<br>2-CHARACTER<br>DESCRIPTOR |
|----------------|--------------------------|----------------------|------------------------|--|---|--------------------------------------|
| 2099           | CH4B                     |                      |                        | 22-OT  | AEDC -<br>HYPERSONIC WIND TUNNEL (B)<br>VA352 | TK                                   |
| 2100           | CH3A<br>CH3B             | 134,075              |                        | ROCKWELL ORBITER/TANK (VL70-000139/<br>VL70-0000341)<br>ROCKWELL ORBITER (VL70-000139) | AEDC -<br>HYPERSONIC WIND TUNNEL (B)<br>VA289 | TH                                   |
| 2123           | IA53                     |                      |                        | LAUNCH CONFIGURATION<br>LAUNCH CONFIGURATION WITH STRUTS                               | MSFC -<br>14-INCH TRISONIC WIND TUNNEL<br>588 | 96                                   |
| 2129           | IA14B                    |                      |                        | SSV 4 CONFIG MCR 0200  | ARC -<br>97-716I                              | B2                                   |

## — INDEX OF PUBLISHED DATA —

## BOOSTER DATA

| DMS<br>DMS-DR- | NASA<br>SERIES<br>NUMBER | NASA<br>CR<br>NUMBER | NASA<br>TM-X<br>NUMBER | CONFIGURATION                                  | TEST NUMBER                                   | DATASET<br>2-CHARACTER<br>DESCRIPTOR |
|----------------|--------------------------|----------------------|------------------------|--|---|--------------------------------------|
| 2012           | SA1F                     | 120,090              |                        | SRB (PRR)                                      | MSFC -<br>14-INCH TRISONIC WIND TUNNEL<br>554 | 79                                   |
| 2025           | SA3F                     | 128,767              |                        | 142-INCH DIAMETER SRB WITH AND WITHOUT STRAKES | MSFC -<br>14-INCH TRISONIC WIND TUNNEL<br>565 | 80                                   |
| 2051           | SA5F                     | 128,774              |                        | BOOSTER MSFC MODEL NO.449                      | MSFC -<br>14-INCH TRISONIC WIND TUNNEL<br>572 | 86                                   |

## INDEX OF PUBLISHED DATA

## ORBITER DATA

| DHS<br>DHS-DR- | NASA<br>SERIES<br>NUMBER | NASA<br>CR<br>NUMBER | NASA<br>TH-X<br>NUMBER | CONFIGURATION           | TEST NUMBER   | DATASET<br>2-CHARACTER<br>DESCRIPTOR |
|----------------|--------------------------|----------------------|------------------------|-------------------------|---|--------------------------------------|
| 2001           | MA5                      | 128,750              |                        | NR ATP ORBITER          | LARC -<br>UNITARY PLAN WIND TUNNEL<br>1002                | OQ                                   |
| 2002           | LA1                      | 128,752              |                        | NR PRR ORBITER          | LARC -<br>8-FOOT TRANSONIC PRESSURE TUNNEL<br>626         | OU                                   |
| 2003           | MA2                      | 128,754              |                        | NR ATP ORBITER          | LARC -<br>22-INCH HELIUM TUNNEL<br>409                    | OS                                   |
| 2004           | MA1                      | 120,082              |                        | MSC D40A ORBITER        | LTV -<br>15-FOOT BY 20-FOOT SUBSONIC WIND TUNNEL<br>S-081 | OO                                   |
| 2005           | OA1                      | 120,070              |                        | NR ATP BASELINE ORBITER | MSFC -<br>14-INCH TRISONIC WIND TUNNEL<br>555             | 76                                   |
| 2007           | OA4                      | 128,760              |                        | NR SSV ORBITER          | ARC -<br>3.5-FOOT HYPERSONIC WIND TUNNEL<br>147           | 81                                   |
| 2008           | MA4                      | 128,751              |                        | NR ATP ORBITER          | LARC -<br>CONTINUOUS-FLOW HYPERSONIC TUNNEL<br>89         | OT                                   |
| 2008<br>R-01   | MA4                      | 128,751              |                        | NR ATP ORBITER          | LARC -<br>CONTINUOUS-FLOW HYPERSONIC TUNNEL<br>89         | OT                                   |
| 2009           | OA3                      | 128,761              |                        | SHUTTLE ORBITER OA3     | ARC -<br>6-FOOT BY 6-FOOT SUPERSONIC WIND TUNNEL<br>650   | BH                                   |

## INDEX OF PUBLISHED DATA

## ORBITER DATA

| DMS<br>DMS-DR- | NASA<br>SERIES<br>NUMBER | NASA<br>CR<br>NUMBER | NASA<br>TM-X<br>NUMBER | CONFIGURATION                       | TEST NUMBER                                   | DATASET<br>2-CHARACTER<br>DESCRIPTOR |
|----------------|--------------------------|----------------------|------------------------|-------------------------------------|---|--------------------------------------|
| 2014           | OA7                      | 128,753              |                        | NR FRR-SSV ORBITER                  | LARC -<br>UNITARY PLAN WIND TUNNEL<br>1007    | OV                                   |
| 2016           | OA2                      | 129,092              |                        | NR ATP ORBITER                      | NRLAD -<br>LOW SPEED WIND TUNNEL<br>689       | DF                                   |
| 2017           | OA5                      | 123,851              |                        | NR ATP ORBITER                      | NRLAD -<br>LOW SPEED WIND TUNNEL<br>690       | DG                                   |
| 2019           | OA6                      | 128,756              |                        | ATP AND FRR ORBITER                 | NRLAD -<br>LOW SPEED WIND TUNNEL<br>694       | DI                                   |
| 2020           | OA9                      | 128,757              |                        | FRR ORBITER                         | NRLAD -<br>LOW SPEED WIND TUNNEL<br>696       | DJ                                   |
| 2021<br>V-01   | OA45                     | 128,758              |                        | -89A ORBITER                        | NRLAD -<br>LOW SPEED WIND TUNNEL<br>699       | DL                                   |
| 2021<br>V-02   | OA45                     | 128,758              |                        | -89A                                | NRLAD -<br>LOW SPEED WIND TUNNEL<br>699       | DL                                   |
| 2022           | OA10                     | 128,759              |                        | ROCKWELL INTERNATIONAL -89B ORBITER | NRLAD -<br>LOW SPEED WIND TUNNEL<br>698       | DK                                   |
| 2023           | LA2                      | 128,763              |                        | LO-100 ORBITER                      | LARC -<br>22-INCH HELIUM TUNNEL<br>411        | OV                                   |
| 2029           | OA47                     | 128,765              |                        | 2A ORBITER                          | MSFC -<br>14-INCH TRISONIC WIND TUNNEL<br>568 | 84                                   |

## INDEX OF PUBLISHED DATA

## ORBITER DATA

| DMS<br>DMS-DR- | NASA<br>SERIES,<br>NUMBER | NASA<br>CR<br>NUMBER | NASA<br>TM-X<br>NUMBER | CONFIGURATION  | TEST NUMBER   | DATASET<br>2-CHARACTER<br>DESCRIPTOR |
|----------------|---------------------------|----------------------|------------------------|--|---|--------------------------------------|
| 2030           | OA14<br>128,768           | 128,768              |                        | -89B ROCKWELL INTERNATIONAL SPACE<br>SHUTTLE ORBITER | NRLAD -<br>LOW SPEED WIND TUNNEL<br>700                       | DM                                   |
| 2031           | LA3                       | 128,769              |                        | LO-100 ORBITER                                       | LARC -<br>CONTINUOUS-FLOW HYPERSONIC TUNNEL<br>85             | OZ                                   |
| 2033           | LA4                       | 128,772              |                        | LO-100 ORBITER                                       | LARC -<br>UNITARY PLAN WIND TUNNEL<br>995<br>1014             | P1                                   |
| 2034           | LA22                      | 128,764              |                        | DOUBLE DELTA WING ORBITER                            | LARC -<br>22-INCH HELIUM TUNNEL<br>405                        | ON                                   |
| 2036           | LA5                       | 128,775              |                        | LARC LO-100 ORBITER                                  | LARC -<br>22-INCH HELIUM TUNNEL<br>413                        | P2                                   |
| 2041           | LA7                       | 128,781              |                        | LARC LO-100 ORBITER (SHIPS)                          | LARC -<br>8-FOOT TRANSONIC PRESSURE TUNNEL<br>644             | P5                                   |
| 2043           | LA16                      | 128,770              |                        | RSI TILES,ORBITER                                    | LARC -<br>MACH 8 VARIABLE-DENSITY HYPERSONIC<br>TUNNEL<br>624 | P8                                   |
| 2044           | OA11A                     | 128,785              |                        | SHUTTLE ORBITER 2A                                   | ARC -<br>3.5-FOOT HYPERSONIC WIND TUNNEL<br>157               | BS                                   |
| 2045           | OA18                      | 128,779              |                        | ROCKWELL SSV ORBITER                                 | NRLAD -<br>LOW SPEED WIND TUNNEL<br>704                       | DO                                   |

## INDEX OF PUBLISHED DATA

## ORBITER DATA

| DMS<br>DMS-DR- | NASA<br>SERIES<br>NUMBER | NASA<br>CR<br>NUMBER | NASA<br>TM-X<br>NUMBER | CONFIGURATION              | TEST NUMBER  | DATASET<br>2-CHARACTER<br>DESCRIPTOR |
|----------------|--------------------------|----------------------|------------------------|----------------------------|--|--------------------------------------|
| 2049           | CH40                     | 128,771              |                        | NR 2A ORBITER              | LARC -<br>MACH 8, VARIABLE-DENSITY HYPERSONIC<br>TUNNEL<br>3619/3670 | OX                                   |
| 2050           | OA43                     | 128,790              |                        | ROCKWELL SSV 2A ORBITER    | ARC -<br>6-FOOT BY 6-FOOT SUPERSONIC WIND T<br>UNNEL<br>706          | BT                                   |
| 2052           | LA10                     | 128,791              |                        | LO-100 ORB(SHIPS) (BW2VFB) | LARC -<br>UNITARY PLAN WIND TUNNEL<br>1015                           | FB                                   |
| 2053<br>V-01   | OA21A<br>12              | 8,792                |                        | ORBITER 3                  | NRLAD -<br>LOW SPEED WIND TUNNEL<br>705                              | DP                                   |
| 2054           | LA8A<br>LA8B             | 128,796              |                        | NR ORBITER                 | LARC -<br>UNITARY PLAN WIND TUNNEL<br>1023/1034                      | FB                                   |
| 2055<br>V-01   | OA48                     | 128,780              |                        | ORBITER 139B               | MSFC -<br>14-INCH TRISONIC WIND TUNNEL<br>574                        | BT                                   |
| 2055<br>V-01   | OA48                     | 128,780              |                        | ORBITER 139                | MSFC -<br>14-INCH TRISONIC WIND TUNNEL<br>574                        | BT                                   |
| 2055<br>V-02   | OA48                     | 128,780              |                        | ORBITER 139                | MSFC -<br>14-INCH TRISONIC WIND TUNNEL<br>574                        | BT                                   |
| 2055<br>V-02   | OA48                     | 128,780              |                        | ORBITER 139                | MSFC -<br>14-INCH TRISONIC WIND TUNNEL<br>574                        | BT                                   |

## INDEX OF PUBLISHED DATA

## ORBITER DATA

| DMS<br>DMS-DR- | NASA<br>SERIES<br>NUMBER | NASA<br>CR<br>NUMBER | NASA<br>TM-X<br>NUMBER | CONFIGURATION   | TEST NUMBER  | DATASET<br>2-CHARACTER<br>DESCRIPTOR |
|----------------|--------------------------|----------------------|------------------------|---|--|--------------------------------------|
| 2055<br>V-03   | OA48                     | 128,780              |                        | ORBITER 139B  | MSFC -<br>14-INCH TRISONIC WIND TUNNEL<br>574      | 87                                   |
| 2055<br>V-03   | OA48                     | 128,780              |                        | ORBITER 139   | MSFC -<br>14-INCH TRISONIC WIND TUNNEL<br>574      | 87                                   |
| 2056           | LA9                      | 128,782              |                        | NAR 089B-MOD NOSE + OMS   | LARC -<br>LOW-TURBULENCE PRESSURE TUNNEL<br>130    | P7                                   |
| 2056           | LA9                      | 128,782              |                        | NAR 089B-MOD NOSE   | LARC -<br>LOW-TURBULENCE PRESSURE TUNNEL<br>130    | P7                                   |
| 2061           | OA68                     | 128,789              |                        | VL70-000147B (MODEL NO. 49-0)                                   | NRLAD -<br>7-FOOT TRISONIC WIND TUNNEL<br>276      | DR                                   |
| 2061           | OA68                     | 128,789              |                        | VL70-000139B (MODEL NO. 42-0)                                   | NRLAD -<br>7-FOOT TRISONIC WIND TUNNEL<br>276      | DR                                   |
| 2066           | LA11                     | 128,783              |                        | SPACE SHUTTLE ORBITER 089B-139                                  | LARC -<br>CONTINUOUS-FLOW HYPERSONIC TUNNEL<br>96  | PD                                   |
| 2067           | OS2                      | 128,777              |                        | 0.025 SCALE MODEL OF SPACE SHUTTLE<br>ORBITER (24-0) FIN/RUDDER | LARC -<br>26-INCH TRANSONIC BLOWDOWN TUNNEL<br>544 | PZ                                   |
| 2069           | MAP                      | 134,074              |                        | PRR ORBITER   | LARC -<br>UNITARY PLAN WIND TUNNEL<br>1031         | PH                                   |
| 2062           | OA73                     | 128,800              |                        | CONFIGURATION 3A ORBITER  | ARC -<br>3.5-FOOT HYPERSONIC WIND TUNNEL<br>167    | BS                                   |

## INDEX OF PUBLISHED DATA

## ORBITER DATA

| DMS<br>DMS-DR- | NASA<br>SERIES<br>NUMBER | NASA<br>CR<br>NUMBER | NASA<br>TM-X<br>NUMBER | CONFIGURATION        | TEST NUMBER  | DATASET<br>2-CHARACTER<br>DESCRIPTOR |
|----------------|--------------------------|----------------------|------------------------|----------------------|--|--------------------------------------|
| 2101           | OH42A<br>OH42B<br>OH42C  | 134,076              |                        | B17C7M4F5W103E22V7R5 | LARC -<br>MACH 8 VARIABLE-DENSITY HYPERSONIC<br>TUNNEL<br>4080/4105<br>4130/4193 | PA                                   |

## INDEX OF PUBLISHED DATA

## INTEGRATED VEHICLE DATA

| DMS<br>DMS-DR- | NASA<br>SERIES<br>NUMBER | NASA<br>CR<br>NUMBER | NASA<br>TM-X<br>NUMBER | CONFIGURATION                                    | TEST NUMBER  | DATASET<br>2-CHARACTER<br>DESCRIPTOR |
|----------------|--------------------------|----------------------|------------------------|--|--|--------------------------------------|
| 2006           | IA1A                     | 120,088              |                        | MSFC/NR PARAMETRIC LAUNCH VEHICLE                | MSFC -<br>14-INCH TRISONIC WIND TUNNEL<br>556  | 77                                   |
| 2010           | IA1B                     | 120,080              |                        | NR ATP ORBITER/TANK AND SRMS ON AN<br>D OFF      | MSFC -<br>14-INCH TRISONIC WIND TUNNEL<br>545  | 72                                   |
| 2011           | MA9F                     | 120,089              |                        | NR ATP ORBITER/EXTERNAL TANK AND S<br>RBS        | MSFC -<br>14-INCH TRISONIC WIND TUNNEL<br>558  | 78                                   |
| 2013<br>V-01   | IA4                      | 120,091              |                        | NASA SSV ORBITER ON NR EOHT WITH S<br>INGLE BSRM | LTV -<br>HIGH SPEED WIND TUNNEL<br>458   | DE                                   |
| 2015<br>V-02   | IA4                      | 120,091              |                        | NASA SSV ORBITER ON NR EOHT WITH S<br>INGLE BSRM | LTV -<br>HIGH SPEED WIND TUNNEL<br>458   | DE                                   |
| 2018           | IA3                      | 128,755              |                        | ATP LAUNCH CONFIGURATION                         | NRLAD -<br>LOW SPEED WIND TUNNEL<br>693  | CH                                   |
| 2024           | IA7                      | 128,766              |                        | 040A SPACE SHUTTLE INTEGRATED VEH<br>ICLE        | ARC -<br>11-FOOT TRANSONIC WIND TUNNEL (UNI<br>TARY)<br>686  | BL                                   |
| 2026           | IA31F                    | 128,778              |                        | MCR 0074 BASELINE LAUNCH VEHICLE                 | MSFC -<br>14-INCH TRISONIC WIND TUNNEL<br>566  | 81                                   |
| 2032<br>V-01   | IA9<br>OA12              | 128,794              |                        | 17-OTS   | ARC -<br>11-FOOT TRANSONIC WIND TUNNEL (UNI<br>TARY)<br>8-FOOT BY 7-FOOT SUPERSONIC WIND T<br>UNNEL (UNITARY)<br>707 | B-                                   |

## INDEX OF PUBLISHED DATA

## INTEGRATED VEHICLE DATA

| DMS<br>DMS-DR- | NASA<br>SERIES<br>NUMBER | NASA<br>CR<br>NUMBER | NASA<br>TM-X<br>NUMBER | CONFIGURATION | TEST NUMBER  | DATASET<br>2-CHARACTER<br>DESCRIPTOR |
|----------------|--------------------------|----------------------|------------------------|---------------|--|--------------------------------------|
| 2032<br>V-02   | IA9<br>OA12              |                      | 128,794                | 17-OTS        | ARC<br>11-FOOT TRANSONIC WIND TUNNEL (UNITARY)<br>8-FOOT BY 7-FOOT SUPERSONIC WIND TUNNEL (UNITARY)<br>707 | B-                                   |
| 2032<br>V-03   | IA9<br>OA12              |                      | 128,794                | 17-OTS        | ARC<br>11-FOOT TRANSONIC WIND TUNNEL (UNITARY)<br>8-FOOT BY 7-FOOT SUPERSONIC WIND TUNNEL (UNITARY)<br>707 | B-                                   |
| 2032<br>V-04   | IA9<br>OA12              |                      | 128,794                | 17-OTS        | ARC<br>11-FOOT TRANSONIC WIND TUNNEL (UNITARY)<br>8-FOOT BY 7-FOOT SUPERSONIC WIND TUNNEL (UNITARY)<br>707 | B-                                   |
| 2032<br>V-05   | IA9<br>OA12              |                      | 128,794                | 17-OTS        | ARC<br>11-FOOT TRANSONIC WIND TUNNEL (UNITARY)<br>8-FOOT BY 7-FOOT SUPERSONIC WIND TUNNEL (UNITARY)<br>707 | B-                                   |
| 2032<br>V-06   | IA9<br>OA12              |                      | 128,794                | 17-OTS        | ARC<br>11-FOOT TRANSONIC WIND TUNNEL (UNITARY)<br>8-FOOT BY 7-FOOT SUPERSONIC WIND TUNNEL (UNITARY)<br>707 | B-                                   |

## INDEX OF PUBLISHED DATA

## INTEGRATED VEHICLE DATA

| DMS<br>DMS-DR- | NASA<br>SERIES<br>NUMBER | NASA<br>CR<br>NUMBER | NASA<br>TM-X<br>NUMBER | CONFIGURATION | TEST NUMBER  | DATASET<br>2-CHARACTER<br>DESCRIPTOR |
|----------------|--------------------------|----------------------|------------------------|---------------|--|--------------------------------------|
| 2032<br>V-07   | IA9<br>OA12              | 128,794              |                        | 17-OTS        | ARC -<br>11-FOOT TRANSONIC WIND TUNNEL (UNITARY)<br>8-FOOT BY 7-FOOT SUPERSONIC WIND TUNNEL (UNITARY)<br>707 | B-                                   |
| 2032<br>V-08   | IA9<br>OA12              | 128,794              |                        | 17-OIS        | ARC -<br>11-FOOT TRANSONIC WIND TUNNEL (UNITARY)<br>8-FOOT BY 7-FOOT SUPERSONIC WIND TUNNEL (UNITARY)<br>707 | B-                                   |
| 2032<br>V-09   | IA9<br>OA12              | 128,794              |                        | 17-OTS        | ARC -<br>11-FOOT TRANSONIC WIND TUNNEL (UNITARY)<br>8-FOOT BY 7-FOOT SUPERSONIC WIND TUNNEL (UNITARY)<br>707 | B-                                   |
| 2032<br>V-10   | IA9<br>OA12              | 128,794              |                        | 17-OTS        | ARC -<br>11-FOOT TRANSONIC WIND TUNNEL (UNITARY)<br>8-FOOT BY 7-FOOT SUPERSONIC WIND TUNNEL (UNITARY)<br>707 | B-                                   |
| 2032<br>V-11   | IA9<br>OA12              | 128,794              |                        | 17-OTS        | ARC -<br>11-FOOT TRANSONIC WIND TUNNEL (UNITARY)<br>8-FOOT BY 7-FOOT SUPERSONIC WIND TUNNEL (UNITARY)<br>707 | B+                                   |

## INDEX OF PUBLISHED DATA

## INTEGRATED VEHICLE DATA

| DMS<br>DMS-DR- | NASA<br>SERIES<br>NUMBER | NASA<br>CR<br>NUMBER | NASA<br>TM-X<br>NUMBER | CONFIGURATION                            | TEST NUMBER  | DATASET<br>2-CHARACTER<br>DESCRIPTOR |
|----------------|--------------------------|----------------------|------------------------|--|--|--------------------------------------|
| 2032<br>V-12   | IA9<br>IA12              | 128,794              |                        | 17-OTS                                   | ARC -<br>11-FOOT TRANSONIC WIND TUNNEL (UNITARY)<br>8-FOOT BY 7-FOOT SUPERSONIC WIND TUNNEL (UNITARY)<br>707 | B-                                   |
| 2063           | IA37<br>IA48             | 128,788              |                        | INTEGRATED VEHICLE                       | MSFC -<br>14-INCH TRISONIC WIND TUNNEL<br>579/580  | 88                                   |
| 2070           | LA23                     | 128,787              |                        | JSC 040A ORBITER WITH EHOT AND 2 S<br>RM | LARC -<br>LOW-TURBULENCE PRESSURE TUNNEL<br>141  | PU                                   |

TABLE 2.4.1-1 WIND TUNNEL TEST/SADSAC  
DATA PROCESSING SUMMARY

WIND TUNNEL TEST / DMS DATA PROCESSING

| TEST ID    | REPORT TITLE  | TESTED | TEST PURPOSE                       | TEST | TYPE OF TEST | MODEL #          | SCALE # | TESTING MACH RANGE              | COGNIZANT AGENCY | TEST DMS PERSONNEL | BASIC PUBLICATIONS OR COMMENTS |
|------------|---|--------|------------------------------------|------|--------------|------------------|---------|---------------------------------|------------------|--------------------|--------------------------------|
| LARC       | - #AERODYNAMIC STABILITY AND CONTROL NR ATP ORBITER |        | #AERODYNAMIC STABILITY AND CONTROL |      |              | #0.01925 / #LARC | /       | #R. FOURNIER, B. SP             | #DMS-DR-2001     |                    |                                |
| UPWT       | - #CHARACTERISTICS OF NR ATP ORBITER                |        | #CHARACTERISTICS OF NR ATP ORBITER |      |              | #1.9 - #LARC     | -       | #FENCER /LARC                   | #NOV., 1972      |                    |                                |
| 1002       |   |        |                                    |      |              | #4.63            |         | #UNITARY PLATE W/J. E. VAUGHN   |                  |                    |                                |
| MA5        | #F A .01925 SCALE                                   |        | #CONFIGURATION                     | *    | *            |                  | *       | #IND TUNNEL                     | #J. L. GLYNN     |                    |                                |
| CR-128,750 | #MODEL NR ATP ORBITER                               |        |                                    | *    | *            |                  | *       |                                 | #-DMS            |                    |                                |
|            | #TEST AT MACH NUMBER                                |        |                                    | *    | *            |                  | *       |                                 |                  |                    |                                |
|            | #RS FROM 1.9 TO 4.0                                 |        |                                    | *    | *            |                  | *       |                                 |                  |                    |                                |
|            | #63   | *      |                                    | *    | *            |                  | *       |                                 |                  |                    |                                |
|            | *   | *      |                                    | *    | *            |                  | *       |                                 |                  |                    |                                |
| LARC       | - #RESULTS OF TRANSONIC PRR ORBITER                 |        | #TRANSONIC AERODYNAMIC             |      |              | #0.015 / #LARC   | /       | #R. MENNELL, B. SP              | #DMS-DR-2002     |                    |                                |
| BPTT       | - #NOMIC TESTS IN THE 8 FOOT                        |        | #NOMIC CHARACTERISTICS             |      |              | #0.3 - #LARC     | -       | #FENCER /NR                     | #MARCH, 1973     |                    |                                |
| 626        |   |        | #ICS                               | *    |              | #1.3             |         | #8-FOOT TRANSONIC R. SINGELLTON |                  |                    |                                |
| LA1        | #PRESSURE TUNNEL OF                                 |        |                                    | *    | *            |                  | *       | #IC PRESSURE TUNNEL-DMS         |                  |                    |                                |
| CR-128,752 | #N A 0.015 SCALE M                                  |        |                                    | *    | *            |                  | *       | #TUNNEL                         | *                |                    |                                |
|            | #MODEL NR-FRR SPACE                                 |        |                                    | *    | *            |                  | *       |                                 |                  |                    |                                |
|            | #SHUTTLE ORBITER                                    | *      |                                    | *    | *            |                  | *       |                                 |                  |                    |                                |
|            | *   | *      |                                    | *    | *            |                  | *       |                                 |                  |                    |                                |
| LARC       | - #HYPERSONIC AERODYNAMIC STABILITY NR ATP ORBITER  |        | #HYPERSONIC AERODYNAMIC            |      |              | #0.0045 / #LARC  | /       | #G. C. ASHBY /LARC              | #DMS-DR-2003     |                    |                                |
| 22HT       | - #NAMIC CHARACTERISTICS                            |        | #NAMIC CHARACTERISTICS             |      |              | #20.3 - #LARC    | -       | #J. E. VAUGHN                   | #APRIL, 1973     |                    |                                |
| 409        | #TICS OF NR-ATP OR                                  |        | #TICS OF NR ATP OR                 |      |              | *                |         | #22-INCH HELIUM-DMS             |                  |                    |                                |
| MA2        | #BITER, ORBITER W/                                  |        | #BITER                             | *    |              |                  | *       | #TUNNEL                         | *                |                    |                                |
| CR-128,754 | #EXTERNAL TANK, AND ASCENT CONFIGURATION            |        |                                    | *    | *            |                  | *       |                                 |                  |                    |                                |
|            | *   | *      |                                    | *    | *            |                  | *       |                                 |                  |                    |                                |
|            | *   | *      |                                    | *    | *            |                  | *       |                                 |                  |                    |                                |
| LTV        | - #LONGITUDINAL AERODYNAMICS OF ORBITER             |        | #ELEVON EFFECTIVENESS              |      |              | #0.05 / #MSC     | /       | #P. ROMERE /MSC                 | #DMS-DR-2004     |                    |                                |
| 1520SWT    | - #DYNAMIC CHARACTERISTICS                          |        | #ESS AND ALTERNATE                 |      |              | #0.067- #LTV     | -       | #J. E. VAUGHN                   | #NOV., 1972      |                    |                                |
| S-081      | #ISTICS OF LOW ASPECT RATIO WING                    |        | #CONFIGURATION GEOMETRIES          |      |              | *                |         | #15-FOOT BY 20-F. M. HALE       |                  |                    |                                |
| MA1        | #RECT RATIO WING CO                                 |        | #OMETRIES IN FREQUENCY             |      |              | *                |         | #FOOT SUBSONIC-DMS              |                  |                    |                                |
| CR-120,002 | #CONFIGURATIONS IN GROUND EFFECT                    |        | #INCE OF GROUND EFFECT             |      |              | *                |         | #WIND TUNNEL                    | *                |                    |                                |
|            | #GROUND EFFECT FOR A MOVING AND STATIC              |        | #ECT                               | *    |              |                  | *       |                                 |                  |                    |                                |
|            | #IONARY GROUND SURFACE                              | *      |                                    | *    |              |                  | *       |                                 |                  |                    |                                |
|            | #FACE   | *      |                                    | *    |              |                  | *       |                                 |                  |                    |                                |
|            | *   | *      |                                    | *    |              |                  | *       |                                 |                  |                    |                                |

**WIND TUNNEL TEST / DMS DATA PROCESSING**

| TEST ID                       | REPORT TITLE  | TESTED                    | TEST PURPOSE | TEST TYPE OF TEST     | MODEL SCALE                   | TESTING MACH RANGE              | COGNIZANT AGENCY | TEST DMS PERSONNEL | BASIC PUBLICATIONS COMMENTS |
|-------------------------------|---|---------------------------|--------------|-----------------------|-------------------------------|---------------------------------|------------------|--------------------|-----------------------------|
| MSFC                          | - #AERODYNAMIC STAB#NR_ATP BASELINE                           | *#AERODYNAMIC STAB#FORCE  |              | #0.004 / #MSFC        | /                             | #P. RAMSEY /MSFC                | #DMS-DR-2005     |                    |                             |
| 14WT                          | - #ILITY, CONTROL EFF#RBITER                                  | *#ILITY AND CONTROL *     |              | #0.6 - #MSFC          | -                             | #V. W. SPARKS                   | #NOV., 1972      |                    |                             |
| 555                           | /#EFFECTIVENESS AND DR#                                       | *#EFFECTIVENESS AND#      |              | #4.96 #14-INCH TRISON | #J. L. GLYNN                  |                                 |                  |                    |                             |
| OA1                           | *#AG CHARACTERISTIC*  | *#DRAg CHARACTERIS *      |              | *                     | *#IC WIND TUNNEL#-DMS         |                                 |                  |                    |                             |
| CR-120,070#S OF A SHUTTLE OR* |   | *#TICS                    | *            | *                     | *                             | *                               |                  |                    |                             |
|                               | *#BITER CONFIGURATI*  | *                         | *            | *                     | *                             | *                               |                  |                    |                             |
|                               | *#ON AT MACH NUMBER*  | *                         | *            | *                     | *                             | *                               |                  |                    |                             |
|                               | *#S FROM 0.6 TO 4.9*  | *                         | *            | *                     | *                             | *                               |                  |                    |                             |
|                               | *#6   | *                         | *            | *                     | *                             | *                               |                  |                    |                             |
|                               | *   | *                         | *            | *                     | *                             | *                               |                  |                    |                             |
| MSFC                          | - #AERODYNAMIC STAB#MSFC/NR PARAMETRI#PERFORMANCE, STAB#FORCE |                           |              | #0.004 / #MSFC        | /                             | #P. E. RAMSEY /MSF#DMS-DR-2006  |                  |                    |                             |
| 14WT                          | - #C STABILITY AND C#C LAUNCH VEHICLE                         | *#ILITY AND CONTROL*      |              | #0.6 - #MSFC          | -                             | #C                              | #DEC., 1972      |                    |                             |
| 556                           | /#ONTROL EFFECTIVEN*  | *#CHARACTERISTICS *       |              | #4.96 #14-INCH TRISON | #V. W. SPARKS                 |                                 |                  |                    |                             |
| IA1A                          | *#ESS OF A PARAMETR*  | *                         | *            | *                     | *#IC WIND TUNNEL#J. L. GLYNN  |                                 |                  |                    |                             |
| CR-120,088#IC SHUTTLE LAUNCH* |   | *                         | *            | *                     | *                             | #-DMS                           |                  |                    |                             |
|                               | *#CONFIGURATION *   | *                         | *            | *                     | *                             | *                               |                  |                    |                             |
|                               | *   | *                         | *            | *                     | *                             | *                               |                  |                    |                             |
| ARC                           | - #RESULTS OF INVEST#NR SSV ORBITER                           | *#STATIC STABILITY #FORCE |              | #0.015 / #ARC         | /                             | #B. CAMERON, C. W. #DMS-DR-2007 |                  |                    |                             |
| 3.5WHT                        | - #IGATIONS ON A 0.0*   | *#AND TRIM CAPABILI*      |              | #7.3 - #ARC           | -                             | #LAMONT /NR                     | #MARCH, 1973     |                    |                             |
| 147                           | /#15 SCALE MODEL NO#  | *#TY, COMPONENT INC*      |              | *                     | *#3.5-FOOT HYPER#T. L. MULKEY |                                 |                  |                    |                             |
| OA4                           | *#RTH AMERICAN ROCK*  | *#EMENTAL EFFECTS *       |              | *                     | *#SONIC WIND TUN#W. R. MORGAN |                                 |                  |                    |                             |
| CR-128,760#WELL SPACE SHUTTL* |   | *                         | *            | *                     | *#NEL                         | #-DMS                           |                  |                    |                             |
|                               | *#E CRBITER IN THE *  | *                         | *            | *                     | *                             | *                               |                  |                    |                             |
|                               | *#NASA/ARC 3.5 FOOT*  | *                         | *            | *                     | *                             | *                               |                  |                    |                             |
|                               | *#HYPERSONIC WIND *   | *                         | *            | *                     | *                             | *                               |                  |                    |                             |
|                               | *#TUNNEL  | *                         | *            | *                     | *                             | *                               |                  |                    |                             |
|                               | *   | *                         | *            | *                     | *                             | *                               |                  |                    |                             |
| LARC                          | - #STATIC STABILITY #NR ATP ORBITER                           | *#AERODYNAMIC STAB#FORCE  |              | #0.0075 / #LARC       | /                             | #T. BLACKSTOCK /LA#DMS-DR-2008  |                  |                    |                             |
| CFHT                          | - #AND PERFORMANCE C*   | *#ILITY AND PERFORMA*     |              | #10.3 - #LARC         | -                             | #RC                             | #JAN., 1973      |                    |                             |
| B9                            | /#CHARACTERISTICS OF*   | *#NCE AT HYPERSONIC*      |              | *                     | *#CONTINUOUS-FLO#V. W. SPARKS |                                 |                  |                    |                             |
| MA4                           | *#THE A.T.P. ORBIT *  | *#MACH NO. OF 10 *        |              | *                     | *#W HYPERSONIC T#J. R. ZILER  |                                 |                  |                    |                             |
| CR-128,751#ER AT M=10.3 *     |   | *                         | *            | *                     | *#UNNEL                       | #-DMS                           |                  |                    |                             |
|                               | *   | *                         | *            | *                     | *                             | *                               |                  |                    |                             |
| LARC                          | - #STATIC STABILITY #NR ATP ORBITER                           | *#AERODYNAMIC STAB#FORCE  |              | #0.0075 / #LARC       | /                             | #T. BLACKSTOCK /LA#DMS-DR-2008  |                  |                    |                             |
| CFHT                          | - #AND PERFORMANCE C*   | *#ILITY AND PERFORMA*     |              | #10.3 - #LARC         | -                             | #RC                             | #REVISION 01     |                    |                             |
| B9                            | /#CHARACTERISTICS OF*   | *#NCE AT HYPERSONIC*      |              | *                     | *#CONTINUOUS-FLO#V. W. SPARKS |                                 |                  |                    |                             |
| MA4                           | *#THE A.T.P. ORBIT *  | *#MACH NO. OF 10 *        |              | *                     | *#W HYPERSONIC T#J. R. ZILER  |                                 |                  |                    |                             |
| CR-128,751#ER AT M=10.3 *     |   | *                         | *            | *                     | *#UNNEL                       | #-DMS                           |                  |                    |                             |
|                               | *   | *                         | *            | *                     | *                             | *                               |                  |                    |                             |

WIND TUNNEL TEST / DMS DATA PROCESSING

| TEST ID                       | REPORT TITLE   | TESTED                   | TEST PURPOSE | TEST    | MODEL        | TESTING                             | COGNIZANT                      | BASIC PUBLICATIONS |
|-------------------------------|--|--------------------------|--------------|---------|--------------|-------------------------------------|--------------------------------|--------------------|
|                               | *  | *                        | *            | *       | TYPE OF TEST | SCALE# MACH RANGE#                  | TEST DMS PERSONNEL             | #OR COMMENTS       |
| ARC                           | - #AERODYNAMIC CHARA#SHUTTLE ORBITER                           | 0#GEOMETRIC VARIATI      | #FORCE       | *.015   | / #ARC       | /                                   | *4. BROWNSON /ARC              | *DMS-DR-2009       |
| 66SWT                         | - #CTERISTICS OF THE#A3  | *ON, LONGITUDINAL *      |              | *0.6    | - #ARC       | -                                   | *- T. FAINE /NR                | *JUNE, 1973        |
| 650                           | /*ROCKWELL INTERNAL  | *AND LATERAL-DIREC*      |              | *2.0    |              | *6-FOOT BY 6-FOOT B. J. FRICKEN     |                                |                    |
| 0A3                           | *TIONAL ORBITER OA*  | *TIONAL STABILITY *      |              | *       |              | *OT SUPERSONIC #-DMS                |                                |                    |
| CR-120,761#3                  | AT MACH NUMBERS*   | *EFFECTS                 |              | *       |              | *WIND TUNNEL *                      |                                |                    |
|                               | *FROM 0.6 TO 2.0 *   | *                        | *            | *       | *            | *                                   |                                |                    |
|                               | *  | *                        | *            | *       | *            | *                                   |                                |                    |
| MSFC                          | - #DETERMINATION OF #NR ATP ORBITER/TA#AERODYNAMIC CHARA#FORCE |                          |              | *0.004  | / #MSFC      | /                                   | *P. RAMSEY / MSFC              | *DMS-DR-2010       |
| 14WT                          | - #THE AERODYNAMIC IANK AND SRMS ON AN#CTERISTICS DURING#      |                          |              | *1.60   | - #MSFC      | -                                   | *- R. BUCHHOLZ /LM#MAY,        | 1973               |
| 545                           | /*INTERFERENCE BETWE#D OFF                                     | *SEPARATION              |              | *4.96   |              | *14-INCH TRISON#SC - E. ALLEN /RI*  |                                |                    |
| 1A1B                          | *EN THE SPACE SHUT*  | *                        | *            | *       |              | *IC WIND TUNNEL*- J. DEHART/NSI *   |                                |                    |
| CR-120,060#TLE ORBITER, EXTE* | *  | *                        | *            | *       | *            | *V. W. SPARKS *                     |                                |                    |
|                               | *RNAL TANK, AND SO#  | *                        | *            | *       | *            | *J. R. ZILER *                      |                                |                    |
|                               | *LID ROCKET BOOSTE#  | *                        | *            | *       | *            | *-DMS *                             |                                |                    |
|                               | *R ON A 0.004 SCAL*  | *                        | *            | *       | *            | *                                   |                                |                    |
|                               | *E ASCENT CONFIGUR*  | *                        | *            | *       | *            | *                                   |                                |                    |
|                               | *ATION   | *                        | *            | *       | *            | *                                   |                                |                    |
|                               | *  | *                        | *            | *       | *            | *                                   |                                |                    |
| MSFC                          | - #SPACE SHUTTLE (AT#NR ATP ORBITER/EX#BASELINE SEPARATI#FORCE |                          |              | *0.004  | / #MSFC      | /                                   | *J. RAMPY /NSI - K#DMS-DR-2011 |                    |
| 14WT                          | - #F CONFIGURATION) #TERNAL TANK AND SCON                      |                          |              | *0.9    | - #MSFC      | -                                   | *. BLACKWELL / MSF#APRIL,      | 1973               |
| 558                           | /*ABORT STAGING INV#RBS  | *                        | *            | *2.0    |              | *14-INCH TRISON#SC - E. ALLEN /RI * |                                |                    |
| MA9F                          | *ESTIGATION  | *                        | *            | *       |              | *IC WIND TUNNEL*- I. FOSSLER/MSC *  |                                |                    |
| CR-120,089#                   | *  | *                        | *            | *       | *            | *V. W. SPARKS *                     |                                |                    |
|                               | *  | *                        | *            | *       | *            | *J. R. ZILER *                      |                                |                    |
|                               | *  | *                        | *            | *       | *            | *-DMS *                             |                                |                    |
|                               | *  | *                        | *            | *       | *            | *                                   |                                |                    |
| MSFC                          | - #AERODYNAMIC CHARA#SRB (PRR)                                 | *DETERMINE STATIC #FORCE |              | *0.0049 | / #MSFC      | /                                   | *JOSH JOHNSON /MSF#DMS-DR-2012 |                    |
| 14WT                          | - #CTERISTICS OF A 1*  | *AERODYNAMIC CHARA#      |              | *1.6    | - #MSFC      | -                                   | *C - W. D. RADFORD#APRIL,      | 1973               |
| 554                           | /*62-INCH DIAMETER *   | *CTERISTICS OF 162#      |              | *3.48   |              | *14-INCH TRISON#NSI - J. RAMPY /*   |                                |                    |
| SA1F                          | *SOLID ROCKET BOOST*   | *-INCH DIAMETER SR*      |              | *       |              | *IC WIND TUNNEL#NSI                 |                                |                    |
| CR-120,090#TER WITH AND WITH# | *  | *B (PRR) WITH AND W#     |              | *       |              | *V. W. SPARKS *                     |                                |                    |
|                               | *OUT STRAKES   | *THOUT STRAKES           |              | *       | *            | *J. R. ZILER *                      |                                |                    |
|                               | *  | *                        | *            | *       | *            | *-DMS *                             |                                |                    |
|                               | *  | *                        | *            | *       | *            | *                                   |                                |                    |

WIND TUNNEL TEST / DMS DATA PROCESSING

| TEST ID                       | REPORT TITLE  | TESTED                                | PURPOSE       | TEST    | TYPE OF TEST           | MODEL SCALE    | TESTING MACH RANGE                | COGNIZANT PERSONNEL | BASIC PUBLICATIONS OR COMMENTS     |
|-------------------------------|---|---------------------------------------|---------------|---------|------------------------|----------------|-----------------------------------|---------------------|------------------------------------|
| LARC                          | - #RESULTS OF SUPER#NR PRR-SSV ORBITER#SUPERSONIC AERODYNAMIC TESTS IN THE# | #CONFIGURATIONS                       | #TEST PURPOSE | #0.015  | / #LARC                | /              | #B. SPENCER, R. MENNELL /NR       | #DMS-DR-2014        |                                    |
| UPWT                          | - #ONIC TESTS IN THE#   | #NAMIC CHARACTERISTICS                |               | #2.5    | - #LARC                | -              | #MELL /NR                         |                     | *MARCH, 1973                       |
| 1007                          | /#LARC UNITARY PLA  | #TICS                                 |               | #4.6    | #UNITARY PLAN          | W#J. E. VAUGHN |                                   |                     |                                    |
| OA7                           | #N WIND TUNNEL ON #   | #CONTROL EFFECTIVE                    |               |         | #IND TUNNEL            |                | #B. J. FRICKEN                    |                     |                                    |
| CR-128,753#A                  | .015 SCALE MODE#  | #NESS                                 |               |         |                        |                | #-DMS                             |                     |                                    |
|                               | #L NR-PRR SPACE SH#   | #MODEL COMPONENT E                    |               |         |                        |                |                                   |                     |                                    |
|                               | #UTTLE ORBITER *  | #FFECTS                               |               |         |                        |                |                                   |                     |                                    |
|                               | *   | #WING AREA-THICKNE                    |               |         |                        |                |                                   |                     |                                    |
|                               | *   | #SS SURVEYS                           |               |         |                        |                |                                   |                     |                                    |
|                               | *   | *                                     |               |         |                        |                |                                   |                     |                                    |
| LTV                           | - #AERODYNAMIC RESUL#NASA SSV ORBITER                                       | #EFFECTS OF BSRM S#FORCE              |               | #0.0075 | / #LTV                 | /              | #P. ROMERE, C. ZIE                | #DMS-DR-2015        |                                    |
| HSWT                          | - #TS OF SEPARATION #ON NR ECHT WITH S#SEPARATION ON LONG#                  | #TUDINAL AND LATE                     |               | #2.4    | - #MSC                 | /              | #GLER /MSC                        |                     | *VOLUME 01                         |
| 458                           | /#TESTS IN THE VOU#INGLE BSRM   | #TUDINAL AND LATE                     |               | #4.39   | #LTV                   | -              | #J. RILEY, J. S. PRIGGE /ROCKWELL |                     | *JULY, 1973                        |
| IA4                           | #HT AERONAUTICS 4X*   | #RAL-DIRECTIONAL S*                   |               | *       | #HIGH SPEED WIN#PRIGGE |                |                                   |                     |                                    |
| CR-120,091#4FT HSWT ON A .00* | #TABILITY AND CONT*   |                                       |               | *       | #D TUNNEL              |                | #J. E. VAUGHN                     |                     |                                    |
|                               | #75 SCALE ROCKWELL*   | #ROL CHARACTERISTI                    |               | *       |                        |                | #B. J. FRICKEN                    |                     |                                    |
|                               | #INTERNATIONAL-AT *   | #CS                                   |               | *       |                        |                | #-DMS                             |                     |                                    |
|                               | #P SHUTTLE INTEGRA*   | *                                     |               | *       |                        |                |                                   |                     |                                    |
|                               | #TED VEHICLE *  | *                                     |               | *       |                        |                |                                   |                     |                                    |
|                               | *   | *                                     |               | *       |                        |                |                                   |                     |                                    |
| LTV                           | - #AERODYNAMIC RESUL#NASA SSV ORBITER                                       | #EFFECTS OF BSRM S#FORCE              |               | #0.0075 | / #MSC                 | /              | #P. ROMERE, C. ZIE                | #DMS-DR-2015        |                                    |
| HSWT                          | - #TS OF SEPARATION #ON NR ECHT WITH S#SEPARATION ON LONG#                  | #TUDINAL AND LATE                     |               | #2.4    | - #LTV                 | -              | #GLER /MSC                        |                     | *J. RILEY, J. S. PRIGGE /VOLUME 02 |
| 458                           | /#TESTS ON THE VOU#INGLE BSRM   | #TUDINAL AND LATE                     |               | #4.39   | #HIGH SPEED WIN#PRIGGE |                | #ROCKWELL                         |                     | *JULY, 1973                        |
| IA4                           | #HT AERONAUTICS 4F*   | #RAL-DIRECTIONAL S*                   |               | *       | #D TUNNEL              |                |                                   |                     |                                    |
| CR-120,091#T X 4FT HSWT ON A* | #TABILITY AND CONT*   |                                       |               | *       |                        |                | #J. E. VAUGHN                     |                     |                                    |
|                               | #.0075 SCALE ROCK *   | #ROL CHARACTERISTI                    |               | *       |                        |                | #B. J. FRICKEN                    |                     |                                    |
|                               | #WELL INTERNATIONA*   | #CS                                   |               | *       |                        |                | #-DMS                             |                     |                                    |
|                               | #L-ATP SHUTTLE INT*   | *                                     |               | *       |                        |                |                                   |                     |                                    |
|                               | #TEGRATED VEHICLE *   | *                                     |               | *       |                        |                |                                   |                     |                                    |
|                               | *   | *                                     |               | *       |                        |                |                                   |                     |                                    |
| NRLAD                         | - #RESULTS OF INVEST#NR ATP ORBITER   | #SUBSONIC AERODYNAMIC TESTS ON A 0.0* |               | #0.0405 | / #NR                  | /              | #R. MENNELL /NR                   | #DMS-DR-2016        |                                    |
| LSWT                          | - #GATIONS ON A 0.0*  | #MIC CHARACTERISTI                    |               | #0.165  | - #NRLAD               | -              | #R. SINGELLTON                    |                     | *APRIL, 1973                       |
| 689                           | /#0.05 SCALE MODEL A*   | #CS                                   |               | #0.26   | #LOW SPEED WIND#-DMS   |                |                                   |                     |                                    |
| OA2                           | #TP VERSION OF THE#   | *                                     |               | *       | #TUNNEL                |                |                                   |                     |                                    |
| CR-120,092#NR-SSV ORBITER IN* | #THE NORTH AMERIC *   | *                                     |               | *       |                        |                |                                   |                     |                                    |
|                               | #AN AERONAUTICAL L*   | *                                     |               | *       |                        |                |                                   |                     |                                    |
|                               | #BORATORY LOW SPE*  | *                                     |               | *       |                        |                |                                   |                     |                                    |
|                               | #ED WIND TUNNEL *   | *                                     |               | *       |                        |                |                                   |                     |                                    |
|                               | *   | *                                     |               | *       |                        |                |                                   |                     |                                    |

## WIND TUNNEL TEST / DMS DATA PROCESSING

| TEST ID    | REPORT TITLE                                      | TESTED                     | TEST PURPOSE                | TEST     | TYPE OF TEST | MODEL SCALE | TESTING | COGNIZANT TEST DMS    | BASIC PUBLICATIONS |
|------------|---|----------------------------|-----------------------------|----------|--------------|-------------|---------|-----------------------|--------------------|
|            |   |                            |                             |          |              | MACH RANGE  | AGENCY  | PERSONNEL             | FOR COMMENTS       |
| NRLAD      | - *RESULTS OF INVESTIGATION ON THE NR ATP ORBITER |                            | *SUBSONIC AERODYNAMIC FORCE | #0.0405  | / *NR        |             |         | *R. KINGSLAND /NR     | *DMS-DR-2017       |
| L5WT       | - *INVESTIGATIONS ON A D.0.0                      |                            | *MICROCHARACTERISTICS       | #0.165-  | / *NRLAD     |             |         | *R. SINGELLTON        | *AFRIL, 1973       |
| 690        | /#405 SCALE MODEL P*                              | #CS                        | *                           | #0.26    |              |             |         |                       | *                  |
| 0A5        | *RR VERSION OF THE                                | *                          | *                           | *        |              |             |         | *                     | *                  |
| CR-123,851 | *NR-SSV ORBITER IN                                | *                          | *                           | *        |              |             |         | *                     | *                  |
|            | *THE NORTH AMERICAN                               | *                          | *                           | *        |              |             |         | *                     | *                  |
|            | *AN AERONAUTICAL L                                | *                          | *                           | *        |              |             |         | *                     | *                  |
|            | *ABORATORY LOW SPE                                | *                          | *                           | *        |              |             |         | *                     | *                  |
|            | *ED WIND TUNNEL                                   | *                          | *                           | *        |              |             |         | *                     | *                  |
|            | *   | *                          | *                           | *        |              |             |         | *                     | *                  |
| NRLAD      | - *CROSS WIND LOADS *ATP LAUNCH CONFIG            | *CROSSWIND LOADS           | *FORCE                      | #0.01925 | / *NR        |             |         | *L. S. KATOW /RI      | *DMS-DR-2018       |
| L5WT       | - *INVESTIGATION OF DURATION                      | *                          | *                           | #0.069-  | / *NRLAD     |             |         | *T. L. MULKEY         | *JUNE, 1973        |
| 693        | /#A .01925 SCALE MO                               | *                          | *                           | #0.25    |              |             |         |                       | *                  |
| 1A3        | *DEL OF THE ATP-SS*                               | *                          | *                           | *        |              |             |         |                       | *                  |
| CR-128,755 | *V LAUNCH CONFIGUR                                | *                          | *                           | *        |              |             |         |                       | *                  |
|            | *ATION  | *                          | *                           | *        |              |             |         |                       | *                  |
|            | *   | *                          | *                           | *        |              |             |         |                       | *                  |
| NRLAD      | - *LOW SPEED LONGITUDINAL AND PRR ORBITER         | *INVESTIGATE CONFIGURATION | *FORCE                      | #0.0405  | / *NR        |             |         | *R. B. KINGSLAND/R    | *DMS-DR-2019       |
| L5WT       | - *DINAL AND LATERAL                              | *ER                        | *URATION VARIABLE           | #0.165-  | / *NRLAD     |             |         |                       | *JUNE, 1973        |
| 694        | /#STABILITY CHARAC                                | *                          | *S TO IMPROVE TOUC          | #0.26    |              |             |         |                       | *                  |
| 0A6        | *TERISTICS OF A PRR                               | *                          | *DOWN LIFT                  | *        |              |             |         |                       | *                  |
| CR-128,756 | *PRR SHUTTLE ORBIT*                               | *                          | *CAPABILITIES               | *        |              |             |         |                       | *                  |
|            | *ER CONFIGURATION                                 | *                          | *                           | *        |              |             |         |                       | *                  |
|            | *   | *                          | *                           | *        |              |             |         |                       | *                  |
| NRLAD      | - *LOW SPEED INVESTIGATION OF PRR ORBITER         |                            | *OPTIMIZE PRR FLAN          | #1.0405  | / *NR        |             |         | *R. B. KINGSLAND,     | *DMS-DR-2020       |
| L5WT       | - *GATION OF THE PRR                              |                            | *FORM WING IN AND           | #0.16    | / *NRLAD     |             |         | *L. KATOW /RI         | *JUNE, 1973        |
| 696        | /#PLANFORM WING BO                                | *                          | *OUT OF GROUND EFF          | #0.26    |              |             |         |                       | *                  |
| 0A9        | *TH IN AND OUT OF                                 | *                          | *                           | *        |              |             |         |                       | *                  |
| CR-128,757 | *GROUND EFFECT                                    | *                          | *                           | *        |              |             |         |                       | *                  |
|            | *   | *                          | *                           | *        |              |             |         |                       | *                  |
| NRLAD      | - *PRESSURE LOADS AND -89A ORBITER                |                            | *PRESSURE LOADS DATA        | #1.2     | / *NR        |             |         | *R. MENNELL /ROCKWELL | *DMS-DR-2021       |
| L5WT       | - *D AERODYNAMIC FOR                              |                            | *TA IN GROUND EFFE          | #1.2     | / *NRLAD     |             |         |                       | *VOLUME 01         |
| 699        | /#CE INFORMATION FOR                              | *                          | *                           | *        |              |             |         |                       | *                  |
| 0A5        | *R THE -89A SPACE                                 | *                          | *                           | *        |              |             |         |                       | *                  |
| CR-128,758 | *SHUTTLE ORBITER C*                               | *                          | *                           | *        |              |             |         |                       | *                  |
|            | *ONFIGURATION                                     | *                          | *                           | *        |              |             |         |                       | *                  |
|            | *   | *                          | *                           | *        |              |             |         |                       | *                  |

**WIND TUNNEL TEST / DMS DATA PROCESSING**

| TEST ID                        | TEST   | TESTED | TEST PURPOSE                | TEST       | TEST                               | TESTING                        | COGNIZANT                      | BASIC PUBLICATIONS |
|--------------------------------|--|--------|-----------------------------|------------|------------------------------------|--------------------------------|--------------------------------|--------------------|
| REPORT TITLE                   | CONFIGURATIONS   | TESTED | PURPOSE                     | TEST       | MACH RANGE                         | AGENCY                         | TEST DMS PERSONNEL             | OR COMMENTS        |
| NRLAD                          | - *PRESSURE LOADS AN*-89A  |        | *PRESSURE LOADS DA*PRESSURE | #0.2       | -                                  | #NR /                          | #R. MENNELL /ROCKW*DMS-DR-2021 |                    |
| LSWT                           | - #0 AERODYNAMIC FOR*  |        | *TA IN GROUND EFFE*         | #0.2       | -                                  | #NRLAD -                       | #ELL                           | *VOLUME 02         |
| 699                            | /ACE INFORMATION FO*   |        | *CT                         | *          | *                                  | *LOW SPEED WIND#H. C. ZIMMERLE | #OCT., 1973                    |                    |
| OA45                           | #R THE -89A SPACE *  |        | *                           | *          | *                                  | *TUNNEL                        | *-DMS                          | *                  |
| CR-128,758*SHUTTLE ORBITER C*  |  |        | *                           | *          | *                                  | *                              | *                              | *                  |
|                                | *CONFIGURATION *   |        | *                           | *          | *                                  | *                              | *                              | *                  |
|                                | *  |        | *                           | *          | *                                  | *                              | *                              | *                  |
| NRLAD                          | - *AERODYNAMIC CHARA*ROCKWELL INTERNAL*LONGITUDINAL AND *FORCE   |        | #0.0405 /                   | #NR /      | #R. B. KINGSLAND /#DMS-DR-2022     |                                |                                |                    |
| LSWT                           | - *CTERISTICS OF THE*TIONAL -89B ORBITER*LATERAL-DIRECTION*      |        | #0.16 -                     | #NRLAD -   | #RI                                | #JUNE, 1973                    |                                |                    |
| 698                            | /#ROCKWELL INTERNAL *  |        | *AL STABILITY LEVE*         | #0.26      |                                    | *LOW SPEED WIND#T. L. MULKEY   | *                              |                    |
| OA10                           | *TIONAL -89B SPACE*  |        | *LS                         | *          | *                                  | *TUNNEL                        | *S. W. BROWN                   | *                  |
| CR-128,759*SHUTTLE ORBITER *   |  |        | *                           | *          | *                                  | *                              | *-DMS                          | *                  |
|                                | *CONFIGURATION *   |        | *                           | *          | *                                  | *                              | *                              | *                  |
|                                | *  |        | *                           | *          | *                                  | *                              | *                              | *                  |
| LARC                           | - *STATIC AERODYNAMIC*LO-100 ORBITER                             |        | *DETERMINE HYPERSONIC FORCE | * 0.0050 / | #LARC /                            | #D. STONE /LARC                | *DMS-DR-2023                   |                    |
| 22HT                           | - *C CHARACTERISTICS*  |        | *NIC PERFORMANCE, *         | #20.30-    | #LARC -                            | #V. W. SPARKS                  | #JUNE, 1973                    |                    |
| 411                            | /#AND OIL FLOW AND *   |        | *STATIC STABILITY *         | #20.30     | #22-INCH HELIUM#D. A. SARVER       | *                              |                                |                    |
| LAZ                            | *ELECTRON BEAM *   |        | *AND CONTROL *              | *          | *                                  | *TUNNEL                        | *-DMS                          | *                  |
| CR-128,763*RESULTS OF A 0.00*  |  |        | *EFFECTIVENESS AND*         | *          | *                                  | *                              | *                              | *                  |
|                                | *5 SCALE MODEL LAN*  |        | *EXAMINE FLOW ABO *         | *          | *                                  | *                              | *                              | *                  |
|                                | *GLEY CONCEPT SPAC*  |        | *UT THE LO-100 CRB*         | *          | *                                  | *                              | *                              | *                  |
|                                | *E SHUTTLE ORBITER*  |        | *ITER                       | *          | *                                  | *                              | *                              | *                  |
|                                | * (LO-100) AT A MAC*   |        | *                           | *          | *                                  | *                              | *                              | *                  |
|                                | *H NUMBER OF 20.3 *  |        | *                           | *          | *                                  | *                              | *                              | *                  |
|                                | *  |        | *                           | *          | *                                  | *                              | *                              | *                  |
| ARC                            | - #WIND TUNNEL TEST #MDA SPACE SHUTTL#STABILITY AND CON*FORCE    |        | #0.019 /                    | #ARC /     | #R. B. HARDIN /RI                  | *DMS-DR-2024                   |                                |                    |
| 11TWT                          | - #OF THE 0.019 (040)* INTEGRATED VEH#TROL DATA, WING F*PRESSURE |        | #1.9 -                      | #ARC -     | #T. L. MULKEY                      | #AUGUST, 1973                  |                                |                    |
| 686                            | /#A) JET FLUME SPAC*CLE  |        | *PRESSURE AND NOZZL*        | #1.2       | #11-FOOT TRANSO#W. M. HALE         | *                              |                                |                    |
| 1A7                            | *E SHUTTLE INTEGRA*  |        | *E PRESSURE DISTRI*         | *          | *NIC WIND TUNNEL*-DMS              | *                              |                                |                    |
| CR-128,766*TEST VEHICLE IN TH* |  |        | *BITIONS                    | *          | #L (UNITARY)                       | *                              | *                              |                    |
|                                | *E ARC 11-FOOT UNI*  |        | *                           | *          | *                                  | *                              | *                              | *                  |
|                                | *TARY WIND TUNNEL *  |        | *                           | *          | *                                  | *                              | *                              | *                  |
|                                | *  |        | *                           | *          | *                                  | *                              | *                              | *                  |
| MSFC                           | - *AERODYNAMIC CHARA#142-INCH DIAMETER*DETERMINATION OF *FORCE   |        | #0.00563 /                  | #MSFC /    | #JOSH D. JOHNSON /#DMS-DR-2025     |                                |                                |                    |
| 14TWT                          | - *CTERISTICS OF A 1*SRB WITH AND WIT *STATIC AERODYNAM*         |        | #0.6 -                      | #MSFC -    | #NASA/MSFC                         | *MAY, 1973                     |                                |                    |
| 565                            | /#42-INCH DIAMETER #OUT STRAKES                                  |        | *C FORCES AND MOME*         | #3.48      | #14-INCH TRISON#WALTER D. RADFORD* |                                |                                |                    |
| SA3F                           | *SOLID ROCKET *  |        | *NTS WITH COMPOEN*          | *          | *IC WIND TUNNEL#NSI                | *                              |                                |                    |
| CR-128,767*BOOSTER WITH AND *  |  |        | *T BUILD-UP                 | *          | *                                  | *V. W. SPARKS                  | *                              |                    |
|                                | *WITHOUT STRAKES *   |        | *                           | *          | *                                  | #A. T. KAVANAUGH               | *                              |                    |
|                                | *  |        | *                           | *          | *                                  | *-DMS                          | *                              |                    |
|                                | *  |        | *                           | *          | *                                  | *                              | *                              | *                  |

**WIND TUNNEL TEST / DMS DATA PROCESSING**

| TEST ID   | REPORT TITLE   | TESTED   | PURPOSE   | TEST  | TYPE OF TEST  | MODEL #     | SCALE #  | TESTING #MACH RANGE        | COGNIZANT AGENCY          | TEST DMS PERSONNEL | BASIC #PUBLICATIONS #OR COMMENTS |
|-----------|--|--|---|---|---|-------------|----------|----------------------------|---------------------------|--------------------|----------------------------------|
| MSFC 14WT | - #ARCOYNAMIC INVESTIGATIONS ON A 0.004 SCALE MODEL MC#                    | - #CONFIGURATIONS ON A 0.004 SCALE MODEL MC#                               | - #DETERMINE THE EFFECTS OF MODEL PAR#                    | - #DETERMINE THE EFFECTS OF MODEL PAR#                    | - #DETERMINE THE EFFECTS OF MODEL PAR#                    | #0.004      | / #MSFC  | / #MSFC                    | - #PAUL RAMSEY/MSFC       | - #DMS-DR-2026     | - #M. K. ROBERTSON/SEPT., 1973   |
| 566       | IA31F  | CR-128,778   | CR-128,778#BASELINE SPACE SHUTTLE LAUNCH VEHICLE          | - #S ON AERODYNAMIC STABILITY                             | - #STATIC STABILITY                                       | #0.6 2- #.2 | / #MSFC  | - #14-INCH TRISON/NORTHROP | - #V. W. SPARKS           | - #B. W. MYERS     | - #                              |
|           |  |  | - #CHARACTERISTICS OV#                                    | - #CHARACTERISTICS OV#                                    | - #CHARACTERISTICS OV#                                    |             |          | - #IC WIND TUNNEL          | - #IC WIND TUNNEL         | - #DMS             | - #                              |
|           |  |  | - #ER A MACH NO. RANGE                                    | - #ER A MACH NO. RANGE                                    | - #ER A MACH NO. RANGE                                    |             |          | - #                        | - #                       | - #                | - #                              |
|           |  |  | - #E OF 0.6 TO 4.96                                       | - #E OF 0.6 TO 4.96                                       | - #E OF 0.6 TO 4.96                                       |             |          | - #                        | - #                       | - #                | - #                              |
|           |  |  | - #0.6 AND 4.96   | - #0.6 AND 4.96   | - #0.6 AND 4.96   |             |          | - #                        | - #                       | - #                | - #                              |
|           |  |  | - #   | - #   | - #   |             |          | - #                        | - #                       | - #                | - #                              |
| MSFC      | - #RESULTS OF A STATIC 2A ORBITER  | - #RESULTS OF A STATIC 2A ORBITER  | - #DETERMINE STATIC STABILITY                             | - #DETERMINE STATIC STABILITY                             | - #DETERMINE STATIC STABILITY                             | #0.004      | / #MSFC  | / #MSFC                    | - #E. C. ALLEN, T. TUMBLE | - #DMS-DR-2029     | - #                              |
| 14WT      | - #IC STABILITY AND 2A ORBITER WITH CONTROL EFFECTIVENESS                  | - #IC STABILITY AND 2A ORBITER WITH CONTROL EFFECTIVENESS                  | - #STABILITY AND CONTROL EFFECTIVENESS                    | - #STABILITY AND CONTROL EFFECTIVENESS                    | - #STABILITY AND CONTROL EFFECTIVENESS                    | #0.6        | / #MSFC  | - #MSFC                    | - #TITLE, T. FOSTER       | - #MAY, 1973       | - #                              |
| 566       | DA47   | CR-128,765   | - #CONTROL EFFECTIVENESS INVESTIGATION OF ORBITER BUILDUP | - #CONTROL EFFECTIVENESS INVESTIGATION OF ORBITER BUILDUP | - #CONTROL EFFECTIVENESS INVESTIGATION OF ORBITER BUILDUP | #4.96       | / #MSFC  | - #14-INCH TRISON          | - #ROCKWELL               | - #                | - #                              |
|           |  |  | - #S  | - #S  | - #S  |             |          | - #IC WIND TUNNEL          | - #J. E. VAUGHN           | - #                | - #                              |
|           |  |  | - #   | - #   | - #   |             |          | - #                        | - #                       | - #                | - #                              |
|           |  |  | - #   | - #   | - #   |             |          | - #                        | - #                       | - #                | - #                              |
|           |  |  | - #A 0.004 SCALE 2A                                       | - #A 0.004 SCALE 2A                                       | - #A 0.004 SCALE 2A                                       |             |          | - #                        | - #                       | - #                | - #                              |
|           |  |  | - #ORBITER IN THE MA                                      | - #ORBITER IN THE MA                                      | - #ORBITER IN THE MA                                      |             |          | - #                        | - #                       | - #                | - #                              |
|           |  |  | - #RSHALL SPACE   | - #RSHALL SPACE   | - #RSHALL SPACE   |             |          | - #                        | - #                       | - #                | - #                              |
|           |  |  | - #FLIGHT CENTER TRI                                      | - #FLIGHT CENTER TRI                                      | - #FLIGHT CENTER TRI                                      |             |          | - #                        | - #                       | - #                | - #                              |
|           |  |  | - #SONIC WIND TUNNEL                                      | - #SONIC WIND TUNNEL                                      | - #SONIC WIND TUNNEL                                      |             |          | - #                        | - #                       | - #                | - #                              |
|           |  |  | - # (MACH= 0.6 - 4.9)                                     | - # (MACH= 0.6 - 4.9)                                     | - # (MACH= 0.6 - 4.9)                                     |             |          | - #                        | - #                       | - #                | - #                              |
|           |  |  | - #6)   | - #6)   | - #6)   |             |          | - #                        | - #                       | - #                | - #                              |
|           |  |  | - #   | - #   | - #   |             |          | - #                        | - #                       | - #                | - #                              |
|           |  |  | - #   | - #   | - #   |             |          | - #                        | - #                       | - #                | - #                              |
| NRLAD     | - #AERODYNAMIC CHARACTERISTICS OF 89B ROCKWELL INT'L AFT-END CONFIGURATION | - #AERODYNAMIC CHARACTERISTICS OF 89B ROCKWELL INT'L AFT-END CONFIGURATION | - #AFT-END CONFIGURATION EFFECTS ON LIFT, DRAG AND PITOT  | - #AFT-END CONFIGURATION EFFECTS ON LIFT, DRAG AND PITOT  | - #AFT-END CONFIGURATION EFFECTS ON LIFT, DRAG AND PITOT  | #0.0405     | / #NR    | / #NR                      | - #R. B. KINGSLAND        | - #DMS-DR-2030     | - #                              |
| LSWT      | - #TERISTICS OF VARIOUS AFT-END CONFIGURATIONS OF THE SHUTTLE ORBITER      | - #TERISTICS OF VARIOUS AFT-END CONFIGURATIONS OF THE SHUTTLE ORBITER      | - #CHING MOMENT   | - #CHING MOMENT   | - #CHING MOMENT   | #0.16       | / #NRLAD | - #NRLAD                   | - #RI                     | - #AUGUST, 1973    | - #                              |
| 700       | DA14   | 128,768  | - #ROCKWELL INTERNAL                                      | - #ROCKWELL INTERNAL                                      | - #ROCKWELL INTERNAL                                      |             |          | - #LOW SPEED WIND TUNNEL   | - #T. L. MULKEY           | - #                | - #                              |
|           |  |  | - #SHUTTLE ORBITER  | - #SHUTTLE ORBITER  | - #SHUTTLE ORBITER  |             |          | - #TUNNEL                  | - #W. M. HALE             | - #                | - #                              |
|           |  |  | - #   | - #   | - #   |             |          | - #                        | - #                       | - #                | - #                              |
| LARC      | - #HYPERSONIC PERFORMANCE OF A 100 SCALE MODEL ORBITER                     | - #HYPERSONIC PERFORMANCE OF A 100 SCALE MODEL ORBITER                     | - #ELEVON AND BODY FORCE                                  | - #ELEVON AND BODY FORCE                                  | - #ELEVON AND BODY FORCE                                  | #0.010      | / #LARC  | / #LARC                    | - #PETER T. BERNOT        | - #DMS-DR-2031     | - #                              |
| CFHT      | - #FORMANCE, STABILITY AND CONTROL CHARACTERISTICS                         | - #FORMANCE, STABILITY AND CONTROL CHARACTERISTICS                         | - #LAP EFFECTIVENESS                                      | - #LAP EFFECTIVENESS                                      | - #LAP EFFECTIVENESS                                      | #10.3       | / #LARC  | - #LARC                    | - #LARC                   | - #JUNE, 1973      | - #                              |
| 85        | LA3  | CR-128,769   | - #CHARACTERISTICS OF A 0.010 SCALE MODEL                 | - #CHARACTERISTICS OF A 0.010 SCALE MODEL                 | - #CHARACTERISTICS OF A 0.010 SCALE MODEL                 |             |          | - #CONTINUOUS-FLOW         | - #V. W. SPARKS           | - #                | - #                              |
|           |  |  | - #OF A LANGLEY CONC                                      | - #OF A LANGLEY CONC                                      | - #OF A LANGLEY CONC                                      |             |          | - #W HYPERSONIC TUNNEL     | - #S. W. BROWN            | - #                | - #                              |
|           |  |  | - #EPT SPACE SHUTTLE                                      | - #EPT SPACE SHUTTLE                                      | - #EPT SPACE SHUTTLE                                      |             |          | - #UNNEL                   | - #DMS                    | - #                | - #                              |
|           |  |  | - #ORBITER  | - #ORBITER  | - #ORBITER  |             |          | - #                        | - #                       | - #                | - #                              |
|           |  |  | - #   | - #   | - #   |             |          | - #                        | - #                       | - #                | - #                              |

WIND TUNNEL TEST / CMS DATA PROCESSING

| TEST ID      | REPORT TITLE                | CONFIGURATIONS TESTED | TEST PURPOSE | TYPE OF TEST              | MODEL SCALE | TESTING MACH RANGE | COGNIZANT AGENCY                 | TEST CMS PERSONNEL | BASIC #PUBLICATIONS OR COMMENTS |
|--------------|-----------------------------|-----------------------|--------------|---------------------------|-------------|--------------------|----------------------------------|--------------------|---------------------------------|
| ARC          | - #RESULTS OF TESTS #17-OTS |                       |              | * TO OBTAIN AERODYN*FORCE | * 0.030     | / *ARC             | / *GILLENS, SPANGLER*DMS-DR-2032 |                    |                                 |
| 11TWT        | - #OA12 AND IA9 IN T*       |                       |              | * AMIC LOADS ON LAU*      | * 0.6       | - *ARC             | - */RI                           |                    | * VOLUME 01                     |
| 87SWT        | - #HE AMES RESEARCH *       |                       |              | * NCH VEHICLE             | * 1.4       |                    | *11-FOOT TRANSOH. C. ZIMMERLE    |                    | * NOV., 1973                    |
| 707          | /#CENTER UNITARY *          |                       |              | *                         | *           |                    | *NIC WIND TUNNE*-DMS             |                    | *                               |
| IA9          | #PLAN WIND TUNNELS*         |                       |              | *                         | *           |                    | RL (UNITARY) *                   |                    | *                               |
| OA12         | #ON AN 0.030-SCAL *         |                       |              | *                         | *           |                    | *8-FOOT BY 7-FO*                 |                    | *                               |
| CR-128,794*E | MODEL OF THE SP*            |                       |              | *                         | *           |                    | *OT SUPERSONIC *                 |                    | *                               |
|              | *ACE SHUTTLE *              |                       |              | *                         | *           |                    | *WIND TUNNEL (U*                 |                    | *                               |
|              | *VEHICLE 2A TO DET*         |                       |              | *                         | *           |                    | *NITARY) *                       |                    | *                               |
|              | *ERMINE AERODYNAM*          |                       |              | *                         | *           |                    | *                                |                    | *                               |
|              | *C LOADS *                  |                       |              | *                         | *           |                    | *                                |                    | *                               |
|              | *                           |                       |              | *                         | *           |                    | *                                |                    | *                               |
| ARC          | - #RESULTS OF TESTS #17-OTS |                       |              | * TO OBTAIN AERODYN*FORCE | * 0.030     | / *ARC             | / *GILLENS, SPANGLER*DMS-DR-2032 |                    |                                 |
| 11TWT        | - #OA12 AND IA9 IN T*       |                       |              | * AMIC LOADS ON LAU*      | * 0.6       | - *ARC             | - */RI                           |                    | * VOLUME 02                     |
| 87SWT        | - #HE AMES RESEARCH *       |                       |              | * NCH VEHICLE             | * 1.4       |                    | *11-FOOT TRANSOH. C. ZIMMERLE    |                    | * NOV., 1973                    |
| 707          | /#CENTER UNITARY *          |                       |              | *                         | *           |                    | *NIC WIND TUNNE*-DMS             |                    | *                               |
| IA9          | #PLAN WIND TUNNELS*         |                       |              | *                         | *           |                    | RL (UNITARY) *                   |                    | *                               |
| OA12         | #ON AN 0.030-SCAL *         |                       |              | *                         | *           |                    | *8-FOOT BY 7-FO*                 |                    | *                               |
| CR-128,794*E | MODEL OF THE SP*            |                       |              | *                         | *           |                    | *OT SUPERSONIC *                 |                    | *                               |
|              | *ACE SHUTTLE *              |                       |              | *                         | *           |                    | *WIND TUNNEL (U*                 |                    | *                               |
|              | *VEHICLE 2A TO DET*         |                       |              | *                         | *           |                    | *NITARY) *                       |                    | *                               |
|              | *ERMINE AERODYNAM*          |                       |              | *                         | *           |                    | *                                |                    | *                               |
|              | *C LOADS *                  |                       |              | *                         | *           |                    | *                                |                    | *                               |
|              | *                           |                       |              | *                         | *           |                    | *                                |                    | *                               |
| ARC          | - #RESULTS OF TESTS #17-OTS |                       |              | * TO OBTAIN AERODYN*FORCE | * 0.030     | / *ARC             | / *GILLENS, SPANGLER*DMS-DR-2032 |                    |                                 |
| 11TWT        | - #OA12 AND IA9 IN T*       |                       |              | * AMIC LOADS ON LAU*      | * 0.6       | - *ARC             | - */RI                           |                    | * VOLUME 03                     |
| 87SWT        | - #HE AMES RESEARCH *       |                       |              | * NCH VEHICLE             | * 1.4       |                    | *11-FOOT TRANSOH. C. ZIMMERLE    |                    | * OCT., 1973                    |
| 707          | /#CENTER UNITARY *          |                       |              | *                         | *           |                    | *NIC WIND TUNNE*-DMS             |                    | *                               |
| IA9          | #PLAN WIND TUNNELS*         |                       |              | *                         | *           |                    | RL (UNITARY) *                   |                    | *                               |
| OA12         | #ON AN 0.030-SCAL *         |                       |              | *                         | *           |                    | *8-FOOT BY 7-FO*                 |                    | *                               |
| CR-128,794*E | MODEL OF THE SP*            |                       |              | *                         | *           |                    | *OT SUPERSONIC *                 |                    | *                               |
|              | *ACE SHUTTLE *              |                       |              | *                         | *           |                    | *WIND TUNNEL (U*                 |                    | *                               |
|              | *VEHICLE 2A TO DET*         |                       |              | *                         | *           |                    | *NITARY) *                       |                    | *                               |
|              | *ERMINE AERODYNAM*          |                       |              | *                         | *           |                    | *                                |                    | *                               |
|              | *C LOADS *                  |                       |              | *                         | *           |                    | *                                |                    | *                               |
|              | *                           |                       |              | *                         | *           |                    | *                                |                    | *                               |

## WIND TUNNEL TEST / DMS DATA PROCESSING

## WIND TUNNEL TEST / DMS DATA PROCESSING

| TEST ID      | REPORT TITLE                | TESTED | PURPOSE | TEST                            | TYPE OF TEST | SCALE  | MODEL                            | COGNIZANT PERSONNEL | BASIC PUBLICATIONS |
|--------------|-----------------------------|--------|---------|---------------------------------|--------------|--------|----------------------------------|---------------------|--------------------|
| ARC          | - *RESULTS OF TESTS #17-OTS |        |         | *TO OBTAIN AERODYNAMIC PRESSURE | * 0.030      | / *ARC | / *GILLENS, SPANGLER*DMS-DR-2032 |                     |                    |
| 11TWT        | - *OA12 AND IA9 IN T*       |        |         | *AMIC LOADS ON LAU*             | * 0.6 -      | / *ARC | - */RI                           |                     | *VOLUME 07         |
| 07SWT        | - *THE AMES RESEARCH *      |        |         | *NCH VEHICLE                    | * 1.4        |        | *11-FOOT TRANSONIC. C. ZIMMERLE  |                     | *DEC., 1973        |
| T07          | / *CENTER UNITARY *         |        |         |                                 |              |        | *NIC WIND TUNNEL*DMS.            |                     | *                  |
| IA9          | *PLAN WIND TUNNELS*         |        |         |                                 |              |        | *L (UNITARY) *                   |                     | *                  |
| OA12         | *ON AN 0.030-SCAL *         |        |         |                                 |              |        | *8-FOOT BY 7-FOOT                |                     | *                  |
| CR-128,794*E | MODEL OF THE SP*            |        |         |                                 |              |        | *OT SUPERSONIC *                 |                     | *                  |
|              | *ACE SHUTTLE *              |        |         |                                 |              |        | *WIND TUNNEL (U*                 |                     | *                  |
|              | *VEHICLE 2A TO DET*         |        |         |                                 |              |        | *NITARY) *                       |                     | *                  |
|              | *ERMINE AERODYNAMIC*        |        |         |                                 |              |        | *                                |                     | *                  |
|              | *C LOADS *                  |        |         |                                 |              |        | *                                |                     | *                  |
|              | *                           |        |         |                                 |              |        | *                                |                     | *                  |
| ARC          | - *RESULTS OF TESTS #17-OTS |        |         | *TO OBTAIN AERODYNAMIC PRESSURE | * 0.030      | / *ARC | / *GILLENS, SPANGLER*DMS-DR-2032 |                     |                    |
| 11TWT        | - *OA12 AND IA9 IN T*       |        |         | *AMIC LOADS ON LAU*             | * 0.6 -      | / *ARC | - */RI                           |                     | *VOLUME 08         |
| 07SWT        | - *THE AMES RESEARCH *      |        |         | *NCH VEHICLE                    | * 1.4        |        | *11-FOOT TRANSONIC. C. ZIMMERLE  |                     | *DEC., 1973        |
| T07          | / *CENTER UNITARY *         |        |         |                                 |              |        | *NIC WIND TUNNEL*DMS             |                     | *                  |
| IA9          | *PLAN WIND TUNNELS*         |        |         |                                 |              |        | *L (UNITARY) *                   |                     | *                  |
| OA12         | *ON AN 0.030-SCAL *         |        |         |                                 |              |        | *8-FOOT BY 7-FOOT                |                     | *                  |
| CR-128,794*E | MODEL OF THE SP*            |        |         |                                 |              |        | *OT SUPERSONIC *                 |                     | *                  |
|              | *ACE SHUTTLE *              |        |         |                                 |              |        | *WIND TUNNEL (U*                 |                     | *                  |
|              | *VEHICLE 2A TO DET*         |        |         |                                 |              |        | *NITARY) *                       |                     | *                  |
|              | *ERMINE AERODYNAMIC*        |        |         |                                 |              |        | *                                |                     | *                  |
|              | *C LOADS *                  |        |         |                                 |              |        | *                                |                     | *                  |
|              | *                           |        |         |                                 |              |        | *                                |                     | *                  |
| ARC          | - *RESULTS OF TESTS #17-OTS |        |         | *TO OBTAIN AERODYNAMIC PRESSURE | * 0.030      | / *ARC | / *GILLENS, SPANGLER*DMS-DR-2032 |                     |                    |
| 11TWT        | - *OA12 AND IA9 IN T*       |        |         | *AMIC LOADS ON LAU*             | * 0.6 -      | / *ARC | - */RI                           |                     | *VOLUME 09         |
| 07SWT        | - *THE AMES RESEARCH *      |        |         | *NCH VEHICLE                    | * 1.4        |        | *11-FOOT TRANSONIC. C. ZIMMERLE  |                     | *JAN., 1974        |
| T07          | / *CENTER UNITARY *         |        |         |                                 |              |        | *NIC WIND TUNNEL*DMS             |                     | *                  |
| IA9          | *PLAN WIND TUNNELS*         |        |         |                                 |              |        | *L (UNITARY) *                   |                     | *                  |
| OA12         | *ON AN 0.030-SCAL *         |        |         |                                 |              |        | *8-FOOT BY 7-FOOT                |                     | *                  |
| CR-128,794*E | MODEL OF THE SP*            |        |         |                                 |              |        | *OT SUPERSONIC *                 |                     | *                  |
|              | *ACE SHUTTLE *              |        |         |                                 |              |        | *WIND TUNNEL (U*                 |                     | *                  |
|              | *VEHICLE 2A TO DET*         |        |         |                                 |              |        | *NITARY) *                       |                     | *                  |
|              | *ERMINE AERODYNAMIC*        |        |         |                                 |              |        | *                                |                     | *                  |
|              | *C LOADS *                  |        |         |                                 |              |        | *                                |                     | *                  |
|              | *                           |        |         |                                 |              |        | *                                |                     | *                  |

## WIND TUNNEL TEST &amp; DMS DATA PROCESSING

| TEST ID      | REPORT TITLE                | TESTED | CONFIGURATIONS | TEST PURPOSE                | TEST           | TYPE OF TEST | SCALE   | MODEL #MACH RANGE | TESTING AGENCY                  | COGNIZANT PERSONNEL            | BASIC PUBLICATIONS |
|--------------|-----------------------------|--------|----------------|-----------------------------|----------------|--------------|---------|-------------------|---------------------------------|--------------------------------|--------------------|
| ARC          | - *RESULTS OF TESTS #17-OTS |        |                | *TO OBTAIN AERODYN*PRESSURE | * 0.030 / *ARC | /            | * 0.6 - | *ARC              | - *RI                           | *GILLENS, SPÄNGLER*DMS-DR-2032 | *VOLUME 10         |
| 11TWT        | - *OA12 AND IA9 IN T*       |        |                | *AMIC LOADS ON LAU*         |                |              |         |                   |                                 |                                |                    |
| 87SWT        | - *HE AMES RESEARCH *       |        |                | *NCH VEHICLE                | *              | *            | * 1.4   |                   | *11-FOOT TRANSONIC. C. ZIMMERLE | *JAN., 1974                    |                    |
| 707          | /*CENTER UNITARY *          |        |                | *                           | *              | *            |         |                   | *NIC WIND TUNNEL*DMS            |                                |                    |
| IA9          | *PLAN WIND TUNNELS*         |        |                | *                           | *              | *            |         |                   | *L (UNITARY) *                  |                                |                    |
| OA12         | *ON AN 0.030-SCAL *         |        |                | *                           | *              | *            |         |                   | *8-FOOT BY 7-FO*                |                                |                    |
| CR-128,794*E | MODEL OF THE SP*            |        |                | *                           | *              | *            |         |                   | *OT SUPERSONIC *                |                                |                    |
|              | *ACE SHUTTLE *              |        |                | *                           | *              | *            |         |                   | *WIND TUNNEL (L*                |                                |                    |
|              | *VEHICLE 2A TO DET*         |        |                | *                           | *              | *            |         |                   | *NITARY) *                      |                                |                    |
|              | *ERMINE AERODYNAMIC*        |        |                | *                           | *              | *            |         |                   | *                               |                                |                    |
|              | *C LOADS *                  |        |                | *                           | *              | *            |         |                   | *                               |                                |                    |
|              | *                           |        |                | *                           | *              | *            |         |                   | *                               |                                |                    |
| ARC          | - *RESULTS OF TESTS #17-OTS |        |                | *TO OBTAIN AERODYN*PRESSURE | * 0.030 / *ARC | /            | * 0.6 - | *ARC              | - *RI                           | *GILLENS, SPÄNGLER*DMS-DR-2032 | *VOLUME 11         |
| 11TWT        | - *OA12 AND IA9 IN T*       |        |                | *AMIC LOADS ON LAU*         |                |              |         |                   |                                 |                                |                    |
| 87SWT        | - *HE AMES RESEARCH *       |        |                | *NCH VEHICLE                | *              | *            | * 1.4   |                   | *11-FOOT TRANSONIC. C. ZIMMERLE | *JAN., 1974                    |                    |
| 707          | /*CENTER UNITARY *          |        |                | *                           | *              | *            |         |                   | *NIC WIND TUNNEL*DMS            |                                |                    |
| IA9          | *PLAN WIND TUNNELS*         |        |                | *                           | *              | *            |         |                   | *L (UNITARY) *                  |                                |                    |
| OA12         | *ON AN 0.030-SCAL *         |        |                | *                           | *              | *            |         |                   | *8-FOOT BY 7-FO*                |                                |                    |
| CR-128,794*E | MODEL OF THE SP*            |        |                | *                           | *              | *            |         |                   | *OT SUPERSONIC *                |                                |                    |
|              | *ACE SHUTTLE *              |        |                | *                           | *              | *            |         |                   | *WIND TUNNEL (L*                |                                |                    |
|              | *VEHICLE 2A TO DET*         |        |                | *                           | *              | *            |         |                   | *NITARY) *                      |                                |                    |
|              | *ERMINE AERODYNAMIC*        |        |                | *                           | *              | *            |         |                   | *                               |                                |                    |
|              | *C LOADS *                  |        |                | *                           | *              | *            |         |                   | *                               |                                |                    |
|              | *                           |        |                | *                           | *              | *            |         |                   | *                               |                                |                    |
| ARC          | - *RESULTS OF TESTS #17-OTS |        |                | *TO OBTAIN AERODYN*PRESSURE | * 0.030 / *ARC | /            | * 0.6 - | *ARC              | - *RI                           | *GILLENS, SPÄNGLER*DMS-DR-2032 | *VOLUME 12         |
| 11TWT        | - *OA12 AND IA9 IN T*       |        |                | *AMIC LOADS ON LAU*         |                |              |         |                   |                                 |                                |                    |
| 87SWT        | - *HE AMES RESEARCH *       |        |                | *NCH VEHICLE                | *              | *            | * 1.4   |                   | *11-FOOT TRANSONIC. C. ZIMMERLE | *JAN., 1974                    |                    |
| 707          | /*CENTER UNITARY *          |        |                | *                           | *              | *            |         |                   | *NIC WIND TUNNEL*DMS            |                                |                    |
| IA9          | *PLAN WIND TUNNELS*         |        |                | *                           | *              | *            |         |                   | *L (UNITARY) *                  |                                |                    |
| OA12         | *ON AN 0.030-SCAL *         |        |                | *                           | *              | *            |         |                   | *8-FOOT BY 7-FO*                |                                |                    |
| CR-128,794*E | MODEL OF THE SP*            |        |                | *                           | *              | *            |         |                   | *OT SUPERSONIC *                |                                |                    |
|              | *ACE SHUTTLE *              |        |                | *                           | *              | *            |         |                   | *WIND TUNNEL (L*                |                                |                    |
|              | *VEHICLE 2A TO DET*         |        |                | *                           | *              | *            |         |                   | *NITARY) *                      |                                |                    |
|              | *ERMINE AERODYNAMIC*        |        |                | *                           | *              | *            |         |                   | *                               |                                |                    |
|              | *C LOADS *                  |        |                | *                           | *              | *            |         |                   | *                               |                                |                    |
|              | *                           |        |                | *                           | *              | *            |         |                   | *                               |                                |                    |

**WIND TUNNEL TEST / DMS DATA PROCESSING**

| TEST ID    | REPORT TITLE   | TESTED                | TEST PURPOSE | TEST TYPE OF TEST | MODEL #              | SCALE #            | TESTING MACH RANGE       | COGNIZANT PERSONNEL | BASIC PUBLICATIONS OR COMMENTS |
|------------|--|-----------------------|--------------|-------------------|----------------------|--------------------|--------------------------|---------------------|--------------------------------|
| LARC       | - *SUPERSONIC STABIL*LO-100 ORBITER                            | *SUPERSONIC STABIL    | *FORCE       | * 0.01            | / *LARC              | /                  | *D.R. STONE/LARC, B. SPE | *CMS-DR-2033        |                                |
| UPWT       | - *ITY AND CONTROL C*  | *ITY CHARACTERISTI*   | *CS          | * 1.5             | - *LARC              | -                  | *SPENCER/NR              | *JULY, 1973         |                                |
| 995        | /*CHARACTERISTICS OF*  | *CS                   | *            | * 4.63            | *UNITARY PLAN        | W.R. SINGELLTON    |                          |                     |                                |
| 1014       | /*A LANGLEY CONCEP*  | *                     | *            | *                 | *IND TUNNEL          |                    | *-DMS                    |                     |                                |
| LA4        | *T SPACE SHUTTLE D*  | *                     | *            | *                 | *                    |                    | *                        |                     |                                |
| CR-128,772 | *RBITER AT MACH 1.*  | *                     | *            | *                 | *                    |                    | *                        |                     |                                |
|            | *5 TO 4.63   | *                     | *            | *                 | *                    |                    | *                        |                     |                                |
|            | *  | *                     | *            | *                 | *                    |                    | *                        |                     |                                |
| LARC       | - *AERODYNAMIC AND F*DOUBLE DELTA WING*LONGITUDINAL AND *FORCE | *LATERAL-DIRECTION*   | * 1.004      | / *LARC           | /                    | *W.C. WOODS, DAVID | *CMS-DR-2034             |                     |                                |
| 22HT       | - *LOW VISUALIZATION*ORBITER                                   | *AL CHARACTERISTIC*   | * 20.3       | - *LARC           | -                    | *R. STONE, JAMES   | *JULY, 1973              |                     |                                |
| 403        | /*STUDIES ON A SPA *   | *S, AND CONTROL EFF*  | *            | *UNITARY HELIUM   | *F. ARRINGTON /LARC* |                    |                          |                     |                                |
| LA22       | *CE SHUTTLE CONCEP*  | *EFFECTIVENESS AS WE* | *            | *TUNNEL           |                      | *J. E. VAUGHN      |                          |                     |                                |
| CR-128,784 | *T WITH A DOUBLE D*  | *LL AS FLOW VISUAL*   | *            | *                 |                      | *S. W. BROWN       |                          |                     |                                |
|            | *ELTA WING ORBITER*  | *IZATION STUDIES *    | *            | *                 |                      | *-DMS              |                          |                     |                                |
|            | *AT A MACH NUMBER *  | *                     | *            | *                 |                      | *                  |                          |                     |                                |
|            | *OF 20.3   | *                     | *            | *                 |                      | *                  |                          |                     |                                |
|            | *  | *                     | *            | *                 |                      | *                  |                          |                     |                                |
| LARC       | - *AERODYNAMIC AND F*LARC LO-100 ORBIT*DEFINE THE EFFECT*FORCE | *S OF WING-FILLET *   | * .0040      | / *LARC           | /                    | *DAVID R. STONE    | /N*CMS-DR-2036           |                     |                                |
| 22HT       | - *LOW-VISUALIZATION*  | *AND WING LEADING-*   | * 20.3       | - *LARC           | -                    | *ASA LARC          | *AUGUST, 1973            |                     |                                |
| 413        | /*STUDIES ASSOCIAT *   | *EDGE SWEEP ANGLES*   | *            | *UNITARY HELIUM   | *D. E. POUCHER       |                    |                          |                     |                                |
| LA5        | *ED WITH VARIATION*  | *AT HYPERSONIC SPL*   | *            | *TUNNEL           |                      | *-DMS              |                          |                     |                                |
| CR-128,775 | *S IN THE GEOMETRY*  | *EDS                  | *            | *                 |                      | *                  |                          |                     |                                |
|            | *OF THE FORWARD P *  | *                     | *            | *                 |                      | *                  |                          |                     |                                |
|            | *PORTION OF IRREGUL*   | *                     | *            | *                 |                      | *                  |                          |                     |                                |
|            | *AR PLANFORM WINGS*  | *                     | *            | *                 |                      | *                  |                          |                     |                                |
|            | *AT A MACH NUMBER *  | *                     | *            | *                 |                      | *                  |                          |                     |                                |
|            | *OF 20.3   | *                     | *            | *                 |                      | *                  |                          |                     |                                |
|            | *  | *                     | *            | *                 |                      | *                  |                          |                     |                                |
| LARC       | - *SURFACE ROUGHNESS*AR 089-B-139 ORB*SURFACE ROUGHNESS*FORCE  | *EFFECTS ON TRANS *   | * 0.0188     | / *LARC           | /                    | *G.M. WARE, B. SPE | *CMS-DR-2040             |                     |                                |
| 6PT        | - *EFFECTS ON THE T *ITER                                      | *ONIC AERODYNAMICS*   | * .35-       | - *LARC           | -                    | *SPENCER /LARC     | *AUGUST, 1973            |                     |                                |
| 643        | /*TRANSONIC AERODYNA*  | *                     | * 1.2        | *8-FOOT TRANSONIC | W. R. MORGAN         |                    |                          |                     |                                |
| LA6        | *MICS OF THE ROCKWA*   | *                     | *            | *                 | *IC PRESSURE TUB     | B. W. MYERS        |                          |                     |                                |
| CR-128,773 | *ELL INTERNATIONAL*  | *                     | *            | *                 | *NTEL                |                    |                          |                     |                                |
|            | *089B-139 ORBITER *  | *                     | *            | *                 | *                    | *-DMS              |                          |                     |                                |
|            | *  | *                     | *            | *                 |                      | *                  |                          |                     |                                |

## WIND TUNNEL TEST / DMS DATA PROCESSING

## WIND TUNNEL TEST / CMS DATA PROCESSING

**WIND TUNNEL TEST / DMS DATA PROCESSING**

| TEST ID    | TESTED                                     | TEST PURPOSE                 | TEST     | TYPE OF TEST    | MODEL SCALE            | TESTING MACH RANGE           | COGNIZANT AGENCY | TEST DMS PERSONNEL | BASIC PUBLICATIONS OR COMMENTS |
|------------|--|------------------------------|----------|-----------------|------------------------|------------------------------|------------------|--------------------|--------------------------------|
| LARC       | - *SUPERSONIC AERODYNAMIC-100 ORB(SHIPS)   | *EFFECTS OF GEOMETRY FORCE   | *0.01875 | / #LARC         | /                      | #D. R. STONE, B. S           | #DMS-DR-2052     |                    |                                |
| UPWT       | - #DYNAMIC CHARACTERISTICS(BW2VFB)         | *DRY ON SUPERSONIC           | * 2.36-  | #LARC           | -                      | #PENSER /LARC                | #NOV., 1973      |                    |                                |
| 1015       | /*TICS ASSOCIATED WITH                     | *AERODYNAMIC CHARACTERISTICS | * 4.63   | *UNITARY PLANE  | W.W. R. MORGAN         |                              |                  |                    |                                |
| LA10       | *ITH VARIATIONS IN                         | *CHARACTERISTICS ON PLANE    | *        | *IND TUNNEL     | #B. W. MYERS           |                              |                  |                    |                                |
| CR-128,791 | *THE GEOMETRY OF THE FORWARD PORTION       | *INFORM WINGS                | *        | *               |                        | #-DMS                        |                  |                    |                                |
|            | *N OF IRREGULAR PLANE                      | *                            | *        | *               |                        |                              |                  |                    |                                |
|            | *INFORM WINGS                              | *                            | *        | *               |                        |                              |                  |                    |                                |
|            | *  | *                            | *        | *               |                        |                              |                  |                    |                                |
| NRLAD      | - *EXPERIMENTAL INVESTIGATION OF ORBITER 3 | *INVESTIGATE THE L*FORCE     | * 0.0405 | / #NR           | /                      | #B. W. CAMERON AND           | #DMS-DR-2053     |                    |                                |
| LSWT       | - *STIGATIONS OF AN                        | *LONGITUDINAL AND L*         | *        | #NRLAD          | -                      | #A. J. RITSCHEL / #VOLUME 01 |                  |                    |                                |
| 705        | /*0.0405 SCALE SPACE                       | *LATERAL-DIRECTIONAL         | *        | *LOW SPEED WIND | ROCKWELL INTERNATIONAL | #DEC., 1973                  |                  |                    |                                |
| OA21A      | *E SHUTTLE                                 | *L SUBSONIC AERODYNAMIC      | *        | *TUNNEL         | *TIONAL                |                              |                  |                    |                                |
| 12         | *CONFIGURATION 3 OF                        | *DYNAMIC CHARACTERISTICS     | *        | *               | #D. A. SARVER          |                              |                  |                    |                                |
| CR-8,792   | *RBITER TO DETERMINE                       | *TICS OF THE ROCKWELL        | *        | *               | #B. W. MYERS           |                              |                  |                    |                                |
|            | *NE SUBSONIC STABIL                        | *WELL INTERNATIONAL          | *        | *               | #-DMS                  |                              |                  |                    |                                |
|            | *LITY                                      | *PROPOSED PRR                | *        | *               |                        |                              |                  |                    |                                |
|            | *CHARACTERISTICS (                         | *SPACE SHUTTLE ORB*          | *        | *               |                        |                              |                  |                    |                                |
|            | *DA21)                                     | *ITER                        | *        | *               |                        |                              |                  |                    |                                |
|            | *  | *                            | *        | *               |                        |                              |                  |                    |                                |
| LARC       | - *SURFACE ROUGHNESS AND ORBITER           | *FORCE                       | * 0.188  | / #LARC         | /                      | #G. M. WARE, BERNARD         | #DMS-DR-2054     |                    |                                |
| UPWT       | - *EFFECTS ON THE SURFACE                  | *                            | *        | #LARC           | -                      | #RD SPENCER JR. /L           | #NOV., 1973      |                    |                                |
| 1023/1034  | /*PERSONIC AERODYNAMIC                     | *                            | *        | *UNITARY PLANE  | W/LARC                 |                              |                  |                    |                                |
| LA8A       | *MICS OF THE ROCKWELL                      | *                            | *        | *IND TUNNEL     | #J. E. VAUGHN          |                              |                  |                    |                                |
| LA8B       | *WELL INTERNATIONAL                        | *                            | *        | *               | #B. W. MYERS           |                              |                  |                    |                                |
| CR-128,796 | *L 089B-139 ORBITER                        | *                            | *        | *               | #-DMS                  |                              |                  |                    |                                |
|            | *R   | *                            | *        | *               |                        |                              |                  |                    |                                |
|            | *  | *                            | *        | *               |                        |                              |                  |                    |                                |
| MSFC       | - *STATIC STABILITY AND ORBITER 139        | *TO DETERMINE THE FORCE      | * 0.004  | / #MSFC         | /                      | #E. C. ALLEN/ROCKWELL        | #DMS-DR-2055     |                    |                                |
| 34TWT      | - *AND CONTROL EFFECTS ORBITER 139B        | *STATIC STABILITY            | * .6 -   | #MSFC           | -                      | #LL                          | #VOLUME 01       |                    |                                |
| 574        | /*TIVENESS OF MODELS                       | *AND CONTROL EFFECT          | * 4.96   | *14-INCH TRISON | TERRY TUTTLE/ROCKWELL  | #SEPT., 1973                 |                  |                    |                                |
| OA48       | *S 12-0 AND 34-0                           | *TIVENESS OF MODEL           | *        | *IC WIND TUNNEL | #W. R. MORGAN          |                              |                  |                    |                                |
| CR-128,780 | *OF THE VEHICLE 3                          | *12-0 AND 34-0               | *        | *               | #B. J. FRICKEN         |                              |                  |                    |                                |
|            | *CONFIGURATIONS                            | *                            | *        | *               | #-DMS                  |                              |                  |                    |                                |
|            | *  | *                            | *        | *               |                        |                              |                  |                    |                                |
|            | *  | *                            | *        | *               |                        |                              |                  |                    |                                |

WIND TUNNEL TEST / CMS DATA PROCESSING

| TEST ID    | REPORT TITLE   | TESTED      | TEST PURPOSE              | TEST    | TYPE OF TEST     | SCALE                 | TESTING MACH RANGE   | MODEL AGENCY | COGNIZANT PERSONNEL | BASIC PUBLICATIONS OR COMMENTS |
|------------|--|-------------|---------------------------|---------|------------------|-----------------------|----------------------|--------------|---------------------|--------------------------------|
| MSFC 14TWT | - #STATIC STABILITY #ORBITER 139 AND CONTROL EFFECTS             | ORBITER 139 | * TO DETERMINE THE #FORCE | #0.004  | / #MSFC          | /                     | #E.C. ALLEN/ROCKWELL | #DMS-DR-2055 |                     |                                |
| 574        | /#TIVENESS OF MODEL*   |             | * STATIC STABILITY *      | * .6    | - #MSFC          | - #LL                 |                      |              | * VOLUME 02         |                                |
| OA48       | *S 12-0 AND 34-0 *   |             | * AND CONTROL EFFECT      | * 4.96  | #14-INCH TRISON  | #TERRY TUTTLE/ROCK    | #SEPT., 1973         |              |                     |                                |
| CR-128,780 | #OF THE VEHICLE 3 *  |             | *TIVENESS OF MODEL*       | *       | #IC WIND TUNNEL  | #WELL                 |                      |              |                     |                                |
|            | *CONFIGURATIONS *  |             | *12-0 AND 34-0 *          | *       |                  |                       | #W. R. MORGAN        |              |                     |                                |
|            | *  |             | *                         | *       |                  |                       | #B. J. FRICKEN       |              |                     |                                |
|            | *  |             | *                         | *       |                  |                       | #--DMS               |              |                     |                                |
| MSFC 14TWT | - #STATIC STABILITY #ORBITER 139 AND CONTROL EFFECTS             | ORBITER 139 | * TO DETERMINE THE #FORCE | #0.004  | / #MSFC          | /                     | #E.C. ALLEN/ROCKWELL | #DMS-DR-2055 |                     |                                |
| 574        | /#TIVENESS OF MODEL*   |             | * STATIC STABILITY *      | * .6    | - #MSFC          | - #LL                 |                      |              | * VOLUME 03         |                                |
| OA48       | *S 12-0 AND 34-0 *   |             | * AND CONTROL EFFECT      | * 4.96  | #14-INCH TRISON  | #TERRY TUTTLE/ROCK    | #NOV., 1973          |              |                     |                                |
| CR-128,780 | #OF THE VEHICLE 3 *  |             | *TIVENESS OF MODEL*       | *       | #IC WIND TUNNEL  | #WELL                 |                      |              |                     |                                |
|            | *CONFIGURATIONS *  |             | *12-0 AND 34-0 *          | *       |                  |                       | #W. R. MORGAN        |              |                     |                                |
|            | *  |             | *                         | *       |                  |                       | #B. J. FRICKEN       |              |                     |                                |
|            | *  |             | *                         | *       |                  |                       | #--DMS               |              |                     |                                |
| LARC       | - #SURFACE ROUGHNESS#AR 089B-MOD NOSE#SURFACE ROUGHNESS#FORCE    |             | #0.01875                  | / #LARC | /                | #G. M. WARE AND BE    | #CMS-DR-2156         |              |                     |                                |
| LTPT       | - #EFFECTS ON THE S # OMS  |             | * EFFECTS ON TRANS *      | *       | #LARC            | - #RNARD SPENCER, JR  | #NOV., 1973          |              |                     |                                |
| 130        | /#SUBSONIC AERODYNAMICS#AR 089B-MOD NOSE#ONIC AERODYNAMICS*      |             | *                         |         | #LOW-TURBULENCE# | / #LARC               |                      |              |                     |                                |
| LA9        | #ICS OF THE *  |             | *                         | *       | #PRESSURE TUNN   | #M. D. MILAM/ROCKWELL |                      |              |                     |                                |
| CR-128,782 | #ROCKWELL INTERNAT*  |             | *                         | *       | #EL              |                       | #ELL INTERNATIONAL   |              |                     |                                |
|            | *IONAL 089B-139 CR*  |             | *                         | *       |                  |                       | #J. E. VAUGHN        |              |                     |                                |
|            | #BITER   |             | *                         | *       |                  |                       | #B. W. MYERS         |              |                     |                                |
|            | *  |             | *                         | *       |                  |                       | #--DMS               |              |                     |                                |
|            | *  |             | *                         | *       |                  |                       | *                    |              |                     |                                |
| NRLAD      | - #SUBSONIC, TRANSONIC#VL70-000139B (MOD#STABILITY AND CON#FORCE |             | #0.015                    | / #NR   | /                | #R. C. MENNELL /RI    | #CMS-DR-2061         |              |                     |                                |
| 7TWT       | - #IC, AND SUPERSONIC#EL NO. 42-0)                               |             | * TROL CHARACTERIST*      | * .6    | - #NRLAD         | - *                   |                      |              | * DEC., 1973        |                                |
| 276        | /#C STABILITY AND C#VL70-000147B (MOD#ICS                        |             | *                         | * 3.0   | #7-FOOT TRISON*  |                       |                      |              |                     |                                |
| OA68       | *ONTROL CHARACTER#EL NO. 49-0)                                   |             | *                         | *       | #C WIND TUNNEL * |                       |                      |              |                     |                                |
| CR-128,789 | #ISTICS OF THE -14*  |             | *                         | *       | *                |                       |                      |              |                     |                                |
|            | #7B SPACE SHUTTLE *  |             | *                         | *       | *                |                       |                      |              |                     |                                |
|            | #ORBITER   |             | *                         | *       | *                |                       |                      |              |                     |                                |
|            | *  |             | *                         | *       | *                |                       |                      |              |                     |                                |

## WIND TUNNEL TEST / DMS DATA PROCESSING

**WIND TUNNEL TEST / DMS DATA PROCESSING**

| TEST ID                        | REPORT TITLE   | TESTED | CONFIGURATIONS         | TEST PURPOSE | TEST   | TYPE OF TEST | MODEL # | SCALE #                          | TESTING            | COGNIZANT          | BASIC PUBLICATIONS |
|--------------------------------|--|--------|------------------------|--------------|--------|--------------|---------|----------------------------------|--------------------|--------------------|--------------------|
|                                |  |        |                        |              |        |              |         |                                  | AGENCY             | TEST DMS PERSONNEL | FOR COMMENTS       |
| LARC                           | - *EFFECTS OF 'REACTI*FRR ORBITER                        |        | *INTERFERENCE STUD     | *#FORCE      | #0.015 | / *LARC      | /       | *J.R.RAUSCH/ROCKWE               | *DMS-DR-2069       |                    |                    |
| UPWT                           | - *ON CONTROL SYSTEM*                                    |        | *Y AT SUPERSONIC S*    |              | #2.5   | - *LARC      | -       | *LL                              |                    | *JAN., 1974        |                    |
| 1031                           | /*JET-FLOW FIELD I *                                     |        | *FEEDS                 | *            | #4.0   |              |         | *UNITARY PLAN                    | W.W.J.MONTA/LARC   |                    |                    |
| MAP                            | *INTERACTIONS ON *                                       |        | *TO DETERMINE CONT*    |              | *      |              |         | *IND TUNNEL                      | *J. E. VAUGHN      |                    |                    |
| CR-134,074*#A 0.015 SCALE MOD* |  |        | *ROL AMPLIFICATION*    |              | *      |              |         | *A. T. KAVANAUGH                 |                    |                    |                    |
|                                | *EL SPACE SHUTTLE *                                      |        | *FACTORS RESULTIN *    |              | *      |              |         |                                  | *-DMS              |                    |                    |
|                                | *ORBITER AERODYNAM*                                      |        | *G FROM JET INTER-*    |              | *      |              |         |                                  |                    |                    |                    |
|                                | *IC *  |        | *ACTION BETWEEN TH*    |              | *      |              |         |                                  |                    |                    |                    |
|                                | *CHARACTERISTICS *                                       |        | *E RCS PLUMES AND *    |              | *      |              |         |                                  |                    |                    |                    |
|                                | *  |        | *THE EXTERNAL FLOW*    |              | *      |              |         |                                  |                    |                    |                    |
|                                | *  |        | *OVER THE VEHICLE *    |              | *      |              |         |                                  |                    |                    |                    |
|                                | *  |        | *                      | *            | *      |              |         |                                  |                    |                    |                    |
| LARC                           | - *EFFECT OF GASEOUS*JSC 040A ORBITER                    |        | *DETERMINE EFFECT      | *#FORCE      | #0.019 | / *LARC      | /       | *J. B. OODS, JR.,                | J*DMS-DR-2070      |                    |                    |
| LTPT                           | - *AND SOLID SIMUL #WITH EHOT AND 2 S#OF PLUME-INDUCED * |        | *#FLOW SEPARATION A*   |              | #1.6   | - *LARC      | -       | *. J. BROWNSON, D.               | *OCT., 1973        |                    |                    |
| 141                            | /*ATED JET PLUMES OARM                                   |        | *#ND ASPIRATION EFF*   |              | #2.2   |              |         | *LOW-TURBULENCE                  | L. KASSNER / ARC   |                    |                    |
| LA23                           | IN AN 040A SPACE S*                                      |        | *EFFECTS DUE TO OPERA* |              | *      |              |         | *PRESSURE TUNN                   | *K. L. BLACKWELL / |                    |                    |
| CR-128,767*#HUTTLE LAUNCH CO*  |  |        | *TION OF BOTH THE *    |              | *      |              |         | *MSFC                            |                    |                    |                    |
|                                | *NFIGURATION AT MA*                                      |        | *ORBITER AND THE S*    |              | *      |              |         | *V. W. SPARKS                    |                    |                    |                    |
|                                | *CH NUMBERS FROM 1*                                      |        | *OLID ROCKET MOTOR*    |              | *      |              |         | *A. T. KAVANAUGH                 |                    |                    |                    |
|                                | #.6 TO 2.2   | *      | *S                     | *            | *      |              |         | *-DMS                            |                    |                    |                    |
|                                | *  | *      | *                      | *            | *      |              |         | *                                |                    |                    |                    |
|                                | *  | *      | *                      | *            | *      |              |         | *                                |                    |                    |                    |
| MSFC                           | - *MISALIGNMENT STUD#PRR BASELINE LAUN*                  |        | *EFFECTS OF MODEL      | *#FORCE      | #0.9   | - *MSFC      | /       | *P. RAMSEY / MSFC                | *DMS-DR-2072       |                    |                    |
| 14TWT                          | - *IES ON SPACE SHUTTLE CONFIGURATION *                  |        | *ELEMENT MISALIGNM*    |              | #1.46  |              |         | *T. MCMEANS, T. DA               | *JAN., 1974        |                    |                    |
| 573                            | /*TLE INTEGRATED VE#MCR 0074 BASELINE*                   |        | *TEST RESULT*          |              | *      |              |         | *14-INCH TRISON                  | *VIS / NSI         |                    |                    |
| IA31FC                         | *HICLE   |        | *MODEL ELEMENTS        | *TS          | *      |              |         | *IC WIND TUNNEL                  | *V. W. SPARKS      |                    |                    |
| CR-134,072*                    |  |        | *                      | *            | *      |              |         | *A. T. KAVANAUGH                 |                    |                    |                    |
|                                | *  | *      | *                      | *            | *      |              |         | *-DMS                            |                    |                    |                    |
|                                | *  | *      | *                      | *            | *      |              |         | *                                |                    |                    |                    |
| ARC                            | - *WIND TUNNEL TEST *                                    |        | *EVALUATE BASIC HY*    | *#FORCE      | #0.010 | / *ARC       | /       | *F. F. FITZGERALD,               | *DMS-DR-2076       |                    |                    |
| 3.5WHT                         | - *OF THE 0.010-SCAL*                                    |        | *PERSONIC STABILIT*    |              | *      |              |         | *M. T. PETROZZI/ R               | *JAN., 1974        |                    |                    |
| 169                            | /*E SPACE SHUTTLE I*                                     |        | *Y CHARACTERISTICS*    |              | *      |              |         | *3.5-FOOT HYPEROCKWELL INTERNATI |                    |                    |                    |
| IA1D                           | *INTEGRATED VEHICLE*                                     |        | *OF FIRST AND *        |              | *      |              |         | *SONIC WIND TUNNEL               |                    |                    |                    |
| CR-128,795*IN THE NASA-AMES *  |  |        | *SECOND STAGE AND *    |              | *      |              |         | *NEL                             | *J. W. CLEARY, J.  |                    |                    |
|                                | *3.5-FOOT HYPERSO *                                      |        | *TO DEFINE ORBITER*    |              | *      |              |         |                                  | *A. MELLENTHIN/ NA |                    |                    |
|                                | *NIC WIND TUNNEL (*                                      |        | *PLUME EFFECTS ON *    |              | *      |              |         |                                  | *SA/AMES RESEARCH  |                    |                    |
|                                | *IA1D)   |        | *AERO CHARACTERIS *    |              | *      |              |         |                                  | *CENTER            |                    |                    |
|                                | *  |        | *TICS USING SOLID *    |              | *      |              |         |                                  | *B. W. MYERS       |                    |                    |
|                                | *  |        | *PLUMES                |              | *      |              |         |                                  | *-DMS              |                    |                    |
|                                | *  |        | *                      | *            | *      |              |         |                                  | *                  |                    |                    |

## WIND TUNNEL TEST / DMS DATA PROCESSING

| TEST ID    | REPORT TITLE           | CONFIGURATIONS TESTED | TYPE OF PURPOSE                            | MODEL TEST      | SCALE           | TESTING MACH RANGE  | COGNIZANT AGENCY | BASIC TEST DMS | PUBLICATIONS FOR COMMENTS |
|------------|------------------------|-----------------------|--|-----------------|-----------------|---------------------|------------------|----------------|---------------------------|
| ARC        | - *EFFECTS OF REACTI   | *CONFIGURATION 3A     | *ASCERTAIN THE EFF*<br>*ECTS OF RCS JET F* | #0.015 / *ARC   | /               | *T. J. DZIUBALA /RO | *DMS-DR-2082     |                |                           |
| 3.5HWT     | - *ON CONTROL SYSTEM   | *ORBITER              |  | #10.29- *ARC    | -               | *CKWELL             |                  | *DEC., 1973    |                           |
| 167        | - *JET SIMULATION      | 0 *                   | *LOW FIELD INTERAC*                        | *               | *3.5-FOOT HYPER | *J. MARROQUIN /RO   |                  |                |                           |
| OA73       | - *N THE STABILITY     |                       | *TIONS WITH THE LO*                        | *               | *SONIC WIND TUN | *CKWELL             |                  |                |                           |
| CR-128,800 | - *AND CONTROL CHARA   |                       | *CAL FLOW FIELD ON*                        | *               | *NEL            | *M. M. MANN         |                  |                |                           |
|            | - *ACTERISTICS OF A DA |                       | *THE HYPERSONIC A *                        | *               | *               | *-DMS               |                  |                |                           |
|            | - *.015-SCALE SPACE    |                       | *ERODYNAMIC AND ST*                        | *               | *               | *                   |                  |                |                           |
|            | - *SHUTTLE ORBITER     |                       | *ABILITY AND CONTR*                        | *               | *               | *                   |                  |                |                           |
|            | - *MODEL IN THE AMES*  |                       | *OL CHARACTERISTIC*                        | *               | *               | *                   |                  |                |                           |
|            | - *RESEARCH CENTER     |                       | *S OF THE ORBITER *                        | *               | *               | *                   |                  |                |                           |
|            | - *3.5-FOOT HYPERSONI  |                       | *DURING RE-ENTRY. *                        | *               | *               | *                   |                  |                |                           |
|            | - *IC WIND TUNNEL      |                       |  | *               | *               | *                   |                  |                |                           |
|            | *                      | *                     |  | *               | *               | *                   |                  |                |                           |
| LARC       | - *                    | *B17C7M4F5W103E22V    | - DETERMINE THE EFF*                       | *0.00593/ *LARC | /               | *R. JONES, T. CREE  | *DMS-DR-2101     |                |                           |
| 8WDHT      | - *                    | #7R5                  | *ECTS OF VARIOUS W*                        | #8.0 - *LARC    | -               | *L. F. LAWING/NASA  | *JAN., 1974      |                |                           |
| 4080/4105  | - *                    | *B17C7M4F5W104E22V    | - ING/UNDERBODY CON*                       | #8.0            | *MACH 8 VARIABL | *M. QUAN, W. DYE, * |                  |                |                           |
| 4130/4195  | - *                    | #7R5                  | *FIGURATIONS ON *                          | *               | *E-DENSITY HYPE | *J. CUMMINGS, H. G* |                  |                |                           |
| CH42A      | - *                    | *B17C7M4F5W106E22V    | - THE AERODYNAMIC *                        | *               | *SONIC TUNNEL   | *ROWITZ, C. CRAIG*  |                  |                |                           |
| CH42B      | - *                    | #7R5H16               | *HEATING RATES AND*                        | *               | *               | *, G. RICH/RI       |                  |                |                           |
| CH42C      | - *                    | *B17C7M4F5W106E22V    | - BOUNDARY LAYER T *                       | *               | *               | *D. A. SARVER       |                  |                |                           |
| CR-134,076 | - *                    | #7R5H17               | *TRANSITION DURING *                       | *               | *               | *G. G. MCDONALD     |                  |                |                           |
|            | *                      | *                     | *SIMULATED ENTRY C*                        | *               | *               | *-DMS               |                  |                |                           |
|            | *                      | *                     | *CONDITIONS *                              | *               | *               | *                   |                  |                |                           |
|            | *                      | *                     | *  | *               | *               | *                   |                  |                |                           |

WORK IN PROCESS  
WIND TUNNEL TEST / DMS DATA PROCESSING

| TEST ID    | REPORT TITLE   | TESTED                  | TEST PURPOSE                                   | TEST    | TYPE OF TEST | MODEL SCALE       | TESTING MACH RANGE              | COGNIZANT AGENCY                 | TEST CMS PERSONNEL | BASIC PUBLICATIONS OR COMMENTS |
|------------|--|-------------------------|--|---------|--------------|-------------------|---------------------------------|----------------------------------|--------------------|--------------------------------|
| ARC 97SWT  | - *EFFECT OF GASEOUS SHUTTLE ORBITER/T PLUME EFFECTS ON FORCE AND SOLID SIMULA TANK SRM (N-040A) | * CONFIGURATIONS TESTED | * STABILITY AND CON* TEST PURPOSE              | * 0.019 | / *ARC       | /                 | * B. J. FRICKEN                 | * CMS-DR-2013                    |                    |                                |
| 616        | / *TEST JET PLUMES ON*   |                         | * TROL CHARACTERIST*                           | * 1.6   | - *ARC       | -                 | *-DMS                           |                                  | *                  |                                |
| 1A2        | *AN 040A SPACE   |                         | * ICS  | * 2.2   |              | * 9-FOOT BY 7-FO* |                                 |                                  | *                  |                                |
| CR-128,762 | *SHUTTLE LAUNCH CO*  |                         |  |         |              |                   | *OT SUPERSONIC                  |                                  | *                  |                                |
|            | *NFIGURATION AT MA*  |                         |  |         |              |                   | *WIND TUNNEL (U*                |                                  | *                  |                                |
|            | *CH NUMBERS FROM 1*  |                         |  |         |              |                   | *NITARY)                        |                                  | *                  |                                |
|            | *.6 TO 2.2   |                         |  |         |              |                   | *                               |                                  | *                  |                                |
|            | *  |                         |  |         |              |                   | *                               |                                  | *                  |                                |
|            | *  |                         |  |         |              |                   | *                               |                                  | *                  |                                |
| MSFC       | - *  |                         | *ROCKWELL MCR0074 *DETERMINE PRESSUR*PRESSURE, | * 0.004 | / *MSFC      | /                 | * P. E. RAMSEY /MSF-CMS-DR-2027 |                                  |                    |                                |
| 14TWT      | - *  |                         | *BASELINE ASCENT C*E DISTRIBUTION OV*          | * 0.6   | - *MSFC      | -                 | *C                              |                                  | *                  |                                |
| 567        | / *  |                         | *CONFIGURATION *ER ET, SRB, ORBIT*             | * 4.96  |              |                   | *14-INCH TRISON*V. W. SPARKS    |                                  | *                  |                                |
| 1A32FB     | *  |                         | *ER WING                                       | *       |              |                   | *IC WIND TUNNEL*W. H. HALE      |                                  | *                  |                                |
|            | *  |                         | *  | *       |              |                   | *                               |                                  | *                  |                                |
|            | *  |                         | *  | *       |              |                   | *-DMS                           |                                  | *                  |                                |
|            | *  |                         | *  | *       |              |                   | *                               |                                  | *                  |                                |
| MSFC       | - *  |                         | *MCR 0074 ORBITER *                            | * FORCE | * 0.004      | / *MSFC           | /                               | * P. RAMSEY /NSI, T. CMS-DR-2028 |                    |                                |
| 14TWT      | - *  |                         | *LAUNCH  | *       | * 0.6        | - *MSFC           | -                               | *DAVIS /NSI                      |                    |                                |
| 570        | / *  |                         | *  | *       | * 4.96       |                   | *14-INCH TRISON*J. E. VAUGHN    |                                  | *                  |                                |
| 1A31FB     | *  |                         | *  | *       | *            |                   | *IC WIND TUNNEL*S. W. BROWN     |                                  | *                  |                                |
|            | *  |                         | *  | *       | *            |                   | *                               |                                  | *                  |                                |
|            | *  |                         | *  | *       | *            |                   | *-DMS                           |                                  | *                  |                                |
|            | *  |                         | *  | *       | *            |                   | *                               |                                  | *                  |                                |
| ARC        | - *RESULTS OF TESTS 17-OTS   |                         | *TO OBTAIN AERODYN*PRESSURE                    | * 0.030 | / *ARC       | /                 | * GILLENS, SPANGLER-CMS-DR-2032 |                                  |                    |                                |
| 11TWT      | - *040A12 AND 1A9 IN T*  |                         | *AMIC LOADS ON LAU*                            | * 0.6   | - *ARC       | -                 | */RI                            | *VOLUME 13                       |                    |                                |
| 87SWT      | - *THE AMES RESEARCH *   |                         | *NCH VEHICLE                                   | *       | * 1.4        |                   | *11-FOOT TRANSON*H. C. ZIMMERLE |                                  | *                  |                                |
| 717        | / *CENTER UNITARY *  |                         | *  | *       | *            |                   | *NIC WIND TUNNEL*-DMS           |                                  | *                  |                                |
| 1A9        | *PLAN WIND TUNNELS*  |                         | *  | *       | *            |                   | *L (UNITARY)                    |                                  | *                  |                                |
| 0A12       | *ON AN 0.030-SCAL *  |                         | *  | *       | *            |                   | *8-FOOT BY 7-FO*                |                                  | *                  |                                |
| CR-128,794 | *E MODEL OF THE SP*  |                         | *  | *       | *            |                   | *OT SUPERSONIC                  |                                  | *                  |                                |
|            | *ACE SHUTTLE   |                         | *  | *       | *            |                   | *WIND TUNNEL (U*                |                                  | *                  |                                |
|            | *VEHICLE 2A TO DET*  |                         | *  | *       | *            |                   | *NITARY)                        |                                  | *                  |                                |
|            | *ERMINE AERODYNAM*   |                         | *  | *       | *            |                   | *                               |                                  | *                  |                                |
|            | *C LOADS   |                         | *  | *       | *            |                   | *                               |                                  | *                  |                                |
|            | *  |                         | *  | *       | *            |                   | *                               |                                  | *                  |                                |

WORK IN PROCESS  
WIND TUNNEL TEST / DMS DATA PROCESSING

| TEST ID      | REPORT TITLE                | TESTED | CONFIGURATIONS | TEST PURPOSE                | TEST    | TYPE OF TEST | SCALE | MODEL                         | TESTING      | COGNIZANT          | BASIC PUBLICATIONS |
|--------------|-----------------------------|--------|----------------|-----------------------------|---------|--------------|-------|-------------------------------|--------------|--------------------|--------------------|
|              |                             |        |                |                             |         |              |       |                               |              | TEST DMS PERSONNEL | OR COMMENTS        |
| ARC          | - *RESULTS OF TESTS #17-OTS |        |                | *TO OBTAIN AERODYN*PRESSURE | * 0.030 | / *ARC       | /     | *GILLENS, SPANGLER            | *DMS-DR-2032 |                    |                    |
| 11TWT        | - *OA12 AND IA9 IN T*       |        |                | *AMIC LOADS ON LAU*         | * 0.6   | - *ARC       | -     | */RI                          | *VOLUME 14   |                    |                    |
| 87SWT        | - *THE AMES RESEARCH *      |        |                | *INCH VEHICLE               | * 1.4   |              |       | *11-FOOT TRANSOH. C. ZIMMERLE |              |                    |                    |
| T07          | /*CENTER UNITARY *          |        |                |                             |         |              |       | *NIC WIND TUNNE*-*DMS         |              |                    |                    |
| IA9          | *PLAN WIND TUNNELS*         |        |                |                             |         |              |       | *L (UNITARY) *                |              |                    |                    |
| OA12         | *ON AN 0.030-SCAL *         |        |                |                             |         |              |       | *8-FOOT BY 7-FO*              |              |                    |                    |
| CR-128,794*E | MODEL OF THE SP*            |        |                |                             |         |              |       | *OT SUPERSONIC *              |              |                    |                    |
|              | *ACE SHUTTLE *              |        |                |                             |         |              |       | *WIND TUNNEL (U*              |              |                    |                    |
|              | *VEHICLE 2A TO DET*         |        |                |                             |         |              |       | *NITARY) *                    |              |                    |                    |
|              | *ERMINE AERODYNAM*          |        |                |                             |         |              |       | *                             |              |                    |                    |
|              | *C LOADS *                  |        |                |                             |         |              |       | *                             |              |                    |                    |
|              | *                           |        |                |                             |         |              |       | *                             |              |                    |                    |
| ARC          | - *RESULTS OF TESTS #17-OTS |        |                | *TO OBTAIN AERODYN*PRESSURE | * 0.030 | / *ARC       | /     | *GILLENS, SPANGLER            | *DMS-DR-2032 |                    |                    |
| 11TWT        | - *OA12 AND IA9 IN T*       |        |                | *AMIC LOADS ON LAU*         | * 0.6   | - *ARC       | -     | */RI                          | *VOLUME 15   |                    |                    |
| 87SWT        | - *THE AMES RESEARCH *      |        |                | *INCH VEHICLE               | * 1.4   |              |       | *11-FOOT TRANSOH. C. ZIMMERLE |              |                    |                    |
| T07          | /*CENTER UNITARY *          |        |                |                             |         |              |       | *NIC WIND TUNNE*-*DMS         |              |                    |                    |
| IA9          | *PLAN WIND TUNNELS*         |        |                |                             |         |              |       | *L (UNITARY) *                |              |                    |                    |
| OA12         | *ON AN 0.030-SCAL *         |        |                |                             |         |              |       | *8-FOOT BY 7-FO*              |              |                    |                    |
| CR-128,794*E | MODEL OF THE SP*            |        |                |                             |         |              |       | *OT SUPERSONIC *              |              |                    |                    |
|              | *ACE SHUTTLE *              |        |                |                             |         |              |       | *WIND TUNNEL (U*              |              |                    |                    |
|              | *VEHICLE 2A TO DET*         |        |                |                             |         |              |       | *NITARY) *                    |              |                    |                    |
|              | *ERMINE AERODYNAM*          |        |                |                             |         |              |       | *                             |              |                    |                    |
|              | *C LOADS *                  |        |                |                             |         |              |       | *                             |              |                    |                    |
|              | *                           |        |                |                             |         |              |       | *                             |              |                    |                    |
| ARC          | - *RESULTS OF TESTS #17-OTS |        |                | *TO OBTAIN AERODYN*PRESSURE | * 0.030 | / *ARC       | /     | *GILLENS, SPANGLER            | *DMS-DR-2032 |                    |                    |
| 11TWT        | - *OA12 AND IA9 IN T*       |        |                | *AMIC LOADS ON LAU*         | * 0.6   | - *ARC       | -     | */RI                          | *VOLUME 16   |                    |                    |
| 87SWT        | - *THE AMES RESEARCH *      |        |                | *INCH VEHICLE               | * 1.4   |              |       | *11-FOOT TRANSOH. C. ZIMMERLE |              |                    |                    |
| T07          | /*CENTER UNITARY *          |        |                |                             |         |              |       | *NIC WIND TUNNE*-*DMS         |              |                    |                    |
| IA9          | *PLAN WIND TUNNELS*         |        |                |                             |         |              |       | *L (UNITARY) *                |              |                    |                    |
| OA12         | *ON AN 0.030-SCAL *         |        |                |                             |         |              |       | *8-FOOT BY 7-FO*              |              |                    |                    |
| CR-128,794*E | MODEL OF THE SP*            |        |                |                             |         |              |       | *OT SUPERSONIC *              |              |                    |                    |
|              | *ACE SHUTTLE *              |        |                |                             |         |              |       | *WIND TUNNEL (U*              |              |                    |                    |
|              | *VEHICLE 2A TO DET*         |        |                |                             |         |              |       | *NITARY) *                    |              |                    |                    |
|              | *ERMINE AERODYNAM*          |        |                |                             |         |              |       | *                             |              |                    |                    |
|              | *C LOADS *                  |        |                |                             |         |              |       | *                             |              |                    |                    |
|              | *                           |        |                |                             |         |              |       | *                             |              |                    |                    |

WORK IN PROCESS  
WIND TUNNEL TEST / DMS DATA PROCESSING

| TEST ID    | REPORT TITLE                    | TESTED | TEST PURPOSE | TYPE OF TEST                | MODEL          | SCALE   | TESTING MACH RANGE              | COGNIZANT AGENCY    | TEST DMS PERSONNEL | BASIC PUBLICATIONS OR COMMENTS |
|------------|---------------------------------|--------|--------------|-----------------------------|----------------|---------|---------------------------------|---------------------|--------------------|--------------------------------|
| ARC        | - *RESULTS OF TESTS #17-OTS     |        |              | *TO OBTAIN AERODYN*PRESSURE | * 0.030 / *ARC | /       | *GILLENS, SPANGLER*DMS-DR-2032  |                     |                    |                                |
| 11TWT      | - *OA12 AND IA9 IN T*           |        |              | *AMIC LOADS ON LAU*         | * 0.6 -        | *ARC    | -                               | *RI                 |                    | *VOLUME 17                     |
| 87SWT      | - *THE AMES RESEARCH *          |        |              | *INCH VEHICLE               | * 1.4          |         | *11-FOOT TRANSONIC. C. ZIMMERLE |                     |                    |                                |
| 707        | / *CENTER UNITARY *             |        |              |                             |                |         | *NIC WIND TUNNEL*DMS            |                     |                    |                                |
| IA9        | *PLAN WIND TUNNELS*             |        |              |                             |                |         | *L (UNITARY) *                  |                     |                    |                                |
| OA12       | *ON AN 0.030-SCAL *             |        |              |                             |                |         | *8-FOOT BY 7-FO*                |                     |                    |                                |
| CR-128,794 | *E MODEL OF THE SP*             |        |              |                             |                |         | *OT SUPERSONIC *                |                     |                    |                                |
|            | *ACE SHUTTLE *                  |        |              |                             |                |         | *WIND TUNNEL (UK)               |                     |                    |                                |
|            | *VEHICLE 2A TO DET*             |        |              |                             |                |         | *NITARY) *                      |                     |                    |                                |
|            | *ERMINE AERODYNAM*              |        |              |                             |                |         | *                               | *                   |                    |                                |
|            | *C LOADS *                      |        |              |                             |                |         | *                               | *                   |                    |                                |
|            | *                               |        |              |                             |                |         | *                               | *                   |                    |                                |
| ARC        | - *RESULTS OF TESTS #17-OTS     |        |              | *TO OBTAIN AERODYN*PRESSURE | * 0.030 / *ARC | /       | *GILLENS, SPANGLER*DMS-DR-2032  |                     |                    |                                |
| 11TWT      | - *OA12 AND IA9 IN T*           |        |              | *AMIC LOADS ON LAU*         | * 0.6 -        | *ARC    | -                               | *RI                 |                    | *VOLUME 18                     |
| 87SWT      | - *THE AMES RESEARCH *          |        |              | *INCH VEHICLE               | * 1.4          |         | *11-FOOT TRANSONIC. C. ZIMMERLE |                     |                    |                                |
| 707        | / *CENTER UNITARY *             |        |              |                             |                |         | *NIC WIND TUNNEL*DMS            |                     |                    |                                |
| IA9        | *PLAN WIND TUNNELS*             |        |              |                             |                |         | *L (UNITARY) *                  |                     |                    |                                |
| OA12       | *ON AN 0.030-SCAL *             |        |              |                             |                |         | *8-FOOT BY 7-FO*                |                     |                    |                                |
| CR-128,794 | *E MODEL OF THE SP*             |        |              |                             |                |         | *OT SUPERSONIC *                |                     |                    |                                |
|            | *ACE SHUTTLE *                  |        |              |                             |                |         | *WIND TUNNEL (UK)               |                     |                    |                                |
|            | *VEHICLE 2A TO DET*             |        |              |                             |                |         | *NITARY) *                      |                     |                    |                                |
|            | *ERMINE AERODYNAM*              |        |              |                             |                |         | *                               | *                   |                    |                                |
|            | *C LOADS *                      |        |              |                             |                |         | *                               | *                   |                    |                                |
|            | *                               |        |              |                             |                |         | *                               | *                   |                    |                                |
| NRLAD      | - *RESULTS OF LOW SP*NR ORBITER |        |              | *INVESTIGATE AERO*FORCE     | * 0.0405 / *NR | /       | *R. MENNELL, B. CA*DMS-DR-2038  |                     |                    |                                |
| LSWT       | - *EED WIND TUNNEL T*           |        |              | *YNAMIC AND PROPUL*         | *              | *NRLAD  | -                               | *MERON/ROCKWELL IN* |                    |                                |
| 701        | / *TESTS ON A .0405 S*          |        |              | *SION EFFECTS OF V*         | *              |         | *LOW SPEED WIND*INTERNATIONAL   |                     |                    |                                |
| OA16       | *CALE MODEL ROCKWE*             |        |              | *ARIOUS AIR BREATH*         | *              | *TUNNEL | -                               | *J. E. VAUGHN       |                    |                                |
| CR-128,793 | *LL SPACE SHUTTLE *             |        |              | *ING ENGINE SYSTEM*         | *              |         |                                 | *J. R. ZILER        |                    |                                |
|            | *ORBITER TESTED BO*             |        |              | *S IN FORCED AIR A*         | *              |         |                                 | *-DMS               |                    |                                |
|            | *TH IN FREE AIR AN*             |        |              | *ND IN THE PRESENCE*        | *              |         |                                 | *                   |                    |                                |
|            | *D IN THE PRESENCE*             |        |              | *E OF THE GROUND *          | *              |         |                                 | *                   |                    |                                |
|            | *OF A GROUND PLAN *             |        |              | *                           | *              |         |                                 | *                   |                    |                                |
|            | *E *                            |        |              | *                           | *              |         |                                 | *                   |                    |                                |
|            | *                               |        |              | *                           | *              |         |                                 | *                   |                    |                                |

WORK IN PROCESS

| TEST       | TEST ID | REPORT TITLE                            | CONFIGURATIONS TESTED       | TEST PURPOSE | TYPE OF TEST | MODEL SCALE | TESTING MACH RANGE               | COGNIZANT PERSONNEL             | BASIC PUBLICATIONS |
|------------|---------|---|-----------------------------|--------------|--------------|-------------|----------------------------------|---------------------------------|--------------------|
| MSFC       |         | - #RESULTS OF WIND T#MODEL 2A ORBITER   | - DETERMINE PROXIMITY FORCE |              |              | *.004       | / #MSFC                          | / W. P. GARTON /ROC#DMS-DR-2039 |                    |
| 14TWT      |         | - TUNNEL TESTS AT MA#AND EXTERNAL TANK  | - EFFECTS ON THEM           |              |              | *5.0        | - #MSFC                          | - KWELL                         | *                  |
| 571        |         | /#CH 5 ON THE .014 *                    | - AERODYNAMIC FORCE         |              |              | *5.0        | *14-INCH TRISON                  | J. E. VAUGHN                    | *                  |
| IAGA       |         | *SCALE MODEL 2A CO*                     | *ES AND MOMENTS EX*         |              |              | *           | *IC WIND TUNNEL                  | A. T. KAVANAUGH                 | *                  |
| CR-134,071 |         | *NFIGURATION SPACE*                     | *PERIENCED BY VEHIC*        |              |              | *           | *                                | *-DMS                           | *                  |
|            |         | *SHUTTLE TO DETER *                     | *CLE 2A CONFIGURAT*         |              |              | *           | *                                | *                               | *                  |
|            |         | *MINE PROXIMITY EF*                     | *ION SHUTTLE ORBIT*         |              |              | *           | *                                | *                               | *                  |
|            |         | *EFFECTS AND ORBITER*                   | *ER AND EXTERNAL T*         |              |              | *           | *                                | *                               | *                  |
|            |         | *CONTROL EFFECTIVE*                     | *ANK DURING AND AB*         |              |              | *           | *                                | *                               | *                  |
|            |         | *NESS DURING ORBIT*                     | *ORT SEPARATION             |              |              | *           | *                                | *                               | *                  |
|            |         | *ER/EXTERNAL TANK *                     | *                           |              |              | *           | *                                | *                               | *                  |
|            |         | *ABORT SEPARATION *                     | *                           |              |              | *           | *                                | *                               | *                  |
|            |         | *                                       | *                           |              |              | *           | *                                | *                               | *                  |
| ARC        |         | - #WIND TUNNEL TEST #2A CONFIGURATION * | - FORCE                     | *0.019       | / #ARC       | /           | #R. B. HARDIN, R. #DMS-DR-2048   |                                 |                    |
| 975WT      |         | - #OF THE 0.019 (2A *                   | - PRESSURE                  | *1.55        | - #ARC       | -           | #R. BURROWS /ROCKWELL            |                                 |                    |
| 710        |         | /#CONFIGURATION) JE*                    | *                           | *            | *2.0         |             | *9-FOOT BY 7-FOOT                |                                 | *                  |
| IA12B      |         | *T PLUME SPACE SHU*                     | *                           | *            |              |             | *OT SUPERSONIC #L. R. GUIST /ARC |                                 | *                  |
|            |         | *TITLE INTEGRATED V*                    | *                           | *            |              |             | *WIND TUNNEL (U#B. J. FRICKEN    |                                 | *                  |
|            |         | *EHICLE IN THE ARC*                     | *                           | *            |              |             | *NITARY) *-DMS                   |                                 | *                  |
|            |         | *9- BY 7-FOOT UNI *                     | *                           | *            |              |             | *                                |                                 | *                  |
|            |         | *TARY WIND TUNNEL *                     | *                           | *            |              |             | *                                |                                 | *                  |
|            |         | *                                       | *                           | *            |              |             | *                                | *                               | *                  |
| NRLAD      |         | - #EXPERIMENTAL INVE#ORBITER 3          | - INVESTIGATE THE L#FORCE   | * 0.0405     | / #NR        | /           | #B. W. CAMERON AND #DMS-DR-2053  |                                 |                    |
| LSWT       |         | - #STIGATIONS OF AN *                   | *LONGITUDINAL AND L*        | *            | #NRLAD       | -           | #A. J. RITSCHEL / #VOLUME 02     |                                 |                    |
| 705        |         | /#0.0405 SCALE SPAC*                    | *ATERAL-DIRECTIONAL*        | *            |              |             | *LOW SPEED WIND#ROCKWELL INTERNA |                                 | *                  |
| 0421A      |         | *E SHUTTLE *                            | *L SUBSONIC AERODY*         | *            |              |             | *TUNNEL #TIONAL                  |                                 | *                  |
| 12         |         | *CONFIGURATION 3 OF*                    | *NAMIC CHARACTERIS*         | *            |              |             | #D. A. SARVER                    |                                 | *                  |
| CR-8,792   |         | *RBITER TO DETERMI*                     | *TICS OF THE ROCKWA         | *            |              |             | #B. W. MYERS                     |                                 | *                  |
|            |         | *NE SUBSONIC STABIL*                    | *ELL INTERNATIONAL*         | *            |              |             | *-DMS                            |                                 | *                  |
|            |         | *LITY *                                 | *PROPOSED PRR *             | *            |              |             | *                                |                                 | *                  |
|            |         | *CHARACTERISTICS (#                     | *SPACE SHUTTLE ORBA         | *            |              |             | *                                |                                 | *                  |
|            |         | *OA21)                                  | *ITER *                     | *            |              |             | *                                |                                 | *                  |
|            |         | *                                       | *                           | *            |              |             | *                                |                                 | *                  |

WORK IN PROCESS  
WIND TUNNEL TEST / CMS DATA PROCESSING

| TEST ID                       | REPORT TITLE   | TESTED | PURPOSE | TYPE OF TEST             | SCALE         | TESTING MACH RANGE | MODEL AGENCY                      | COGNIZANT PERSONNEL | BASIC PUBLICATIONS FOR COMMENTS |
|-------------------------------|--|--------|---------|--------------------------|---------------|--------------------|-----------------------------------|---------------------|---------------------------------|
| LARC                          | - #RESULTS OF AN EXP*ORBITER, MODIFIED*STAB.AND CONTROL *FORCE |        |         | * 0.015/ #LARC           | /             |                    | * V. ESPARZA, M. MIL#DMS-DR-2057  |                     |                                 |
| UPWT                          | - #ERIMENTAL AERODYN#2A,3                                      |        |         | * 2.5- #LARC             | -             |                    | * AM /ROCKWELL                    | *                   |                                 |
| 1035                          | /#AMIC INVESTIGATION*  |        |         | * 4.6                    |               |                    | * UNITARY PLAN W/R. SINGELLTON    | *                   |                                 |
| OA44                          | #IN TO OBTAIN STATIC STABILITIES OF THE SSV *                  |        |         |                          |               |                    | * IN TUNNEL                       | *-DMS               | *                               |
|                               | #C STABILITY AND C*<br>#ONTROL CHARACTERI*                     |        |         |                          |               |                    |                                   |                     |                                 |
|                               | #STICS OF THE SSV *  |        |         |                          |               |                    |                                   |                     | *                               |
|                               | #CONFIGURATIONS 2A*  |        |         |                          |               |                    |                                   |                     | *                               |
|                               | * (VL70-0000089B) AN*  |        |         |                          |               |                    |                                   |                     | *                               |
|                               | #D 3 (VL70-000139B)*   |        |         |                          |               |                    |                                   |                     | *                               |
|                               | #CRBITERS AT MACH *  |        |         |                          |               |                    |                                   |                     | *                               |
|                               | #NUMBERS OF 2.5, *   |        |         |                          |               |                    |                                   |                     | *                               |
|                               | *3.9, AND 4.6 *  |        |         |                          |               |                    |                                   |                     | *                               |
|                               | *  |        |         |                          |               |                    |                                   |                     | *                               |
| LARC                          | - #RESULTS OF THE D.*ORBITER NAR VL70-*OBTAIN GENERAL ST*FORCE |        |         | *0.25 - #LARC            | /             |                    | * BERNARD SPENCER J#DMS-DR-2058   |                     |                                 |
| LTPT                          | - #015 SCALE SPACE SH#000134B CONFIG. #ABILITY AND CONTR*      |        |         | * #LARC                  | -             |                    | * R. AND JAMES ELLI*              |                     |                                 |
| 130                           | /#HUTTLE VEHICLE OR*   |        |         |                          |               |                    | * LOW-TURBULENCE SON /NASA LARC   | *                   |                                 |
| OA17                          | #BITER TEST (OA17)*  |        |         |                          |               |                    | * PRESSURE TUNN #D. E. FOUCHER    | *                   |                                 |
|                               | #IN THE NASA LOW T*  |        |         |                          |               |                    | *#EL                              | *-DMS               | *                               |
|                               | #URBULENCE PRESSUR*  |        |         |                          |               |                    |                                   |                     | *                               |
|                               | #E TUNNEL *  |        |         |                          |               |                    |                                   |                     | *                               |
|                               | *  |        |         |                          |               |                    |                                   |                     | *                               |
| ARC                           | - #INVESTIGATIONS OF*ORBITER 2A                                |        |         | #DETERMINE THE FOR*FORCE | *0.015 / #ARC | /                  | * M. D. MILAM AND M#DMS-DR-2059   |                     |                                 |
| 3.5WHT                        | - #THE SPACE SHUTTL *  |        |         | *CE, MOMENT, AND H*      | *5.0 - #ARC   | -                  | * E. NICHOLS/ROCK*                |                     |                                 |
| 160                           | /#E ORBITER 2A CONF*   |        |         | *INGE MOMENT CHARA*      | *7.0          |                    | *3.5-FOOT HYPERWELL INTERNATIONA* |                     |                                 |
| OA11B                         | #FIGURATION *  |        |         | *CTERISTICS *            |               |                    | *SONIC WIND TUNL                  | *                   |                                 |
| CR-126,798#0.015-SCALE MODEL* |  |        |         | *OF CONFIGURATION *      |               |                    | *J. A. MELLENTHIN *               |                     |                                 |
|                               | #IN THE NASA AMES *  |        |         | *2A SPACE SHUTTLE *      |               |                    | *AND J. CLEARY/NAS*               |                     |                                 |
|                               | #RESEARCH CENTER *   |        |         | #VEHICLE ORBITER A*      |               |                    | *A/AMES) RESEARCH C*              |                     |                                 |
|                               | #3.5-FOOT *  |        |         | #T MACH *                |               |                    | *ENTER                            | *                   |                                 |
|                               | #HYPERSONIC WIND T*  |        |         | #NUMBERS 5, 7, AND*      |               |                    | *B. W. MYERS                      | *                   |                                 |
|                               | #UNNEL AT MACH NUM*  |        |         | *10 *                    |               |                    | *#DMS                             | *                   |                                 |
|                               | #BERS 5, 7 AND 10 *  |        |         | *                        |               |                    | *                                 |                     | *                               |
|                               | *  |        |         | *                        |               |                    | *                                 |                     | *                               |

WORK IN PROCESS  
WIND TUNNEL TEST / DMS DATA PROCESSING

| TEST ID | TEST   | TESTED  | CONFIGURATIONS | PURPOSE | TEST                      | TYPE OF TEST | MODEL # | SCALE #                       | TESTING             | COGNIZANT    | BASIC #      |
|---------|--|---------|----------------|---------|---------------------------|--------------|---------|-------------------------------|---------------------|--------------|--------------|
|         |  |         |                |         |                           |              |         |                               |                     | TEST DMS     | PUBLICATIONS |
|         |  |         |                |         |                           |              |         |                               |                     | PERSONNEL    | OR COMMENTS  |
| ARC     | - *RESULTS OF AN AERORBITER 3,A                            |         |                |         | *GENERAL STABILITY*FORCE  | #0.015       | / *ARC  | /                             | *B. W. MYERS        | *DMS-DR-2060 |              |
| 3.5WWT  | - *AERODYNAMIC FORCE AND                                   |         |                |         | *AND CONTROL CHAR *       | *            | *ARC    | -                             | --CMS               | *            |              |
| 163     | / *MOMENT INVESTIG*  |         |                |         | *ACTERISTICS FOR C*       | *            |         | #3.5-FOOT HYPER*              |                     | *            |              |
| OA58    | *ATION OF AN 0.015*  |         |                |         | *ONFIGURATION 3 *         | *            |         | *SONIC WIND TUN*              |                     | *            |              |
|         | *-SCALE CONFIGURAT*  |         |                |         | *AND ALTERNATE VEH*       | *            | *NEL    |                               | *                   | *            |              |
|         | *ION 3 SPACE SHUTT*  |         |                |         | *ICLES                    | *            | *       | *                             | *                   | *            |              |
|         | *LE ORBITER IN THE*  |         |                |         | *                         | *            | *       | *                             | *                   | *            |              |
|         | *NASA/ARC 3.5-FOO *  |         |                |         | *                         | *            | *       | *                             | *                   | *            |              |
|         | *T HYPERSONIC WIND*  |         |                |         | *                         | *            | *       | *                             | *                   | *            |              |
|         | *TUNNEL (OA58) *   |         |                |         | *                         | *            | *       | *                             | *                   | *            |              |
|         | *  |         |                |         | *                         | *            | *       | *                             | *                   | *            |              |
|         | *  |         |                |         | *                         | *            | *       | *                             | *                   | *            |              |
| AEDC    | - *  | *32-OTS |                |         | *AERODYNAMIC EFFECT*FORCE | #0.01        | / *AEDC | /                             | *J. E. VAUGHN       | *DMS-DR-2062 |              |
| SWTA    | - *  | *       |                |         | *TS OF NOMINAL ABO*       | #4.5         | - *AEDC | -                             | *A. T. KAVANAUGH    | *            |              |
| 323     | / *  | *       |                |         | *RT OF BOOSTERS *         | #4.5         |         | *SUPERSONIC WIND-DMS          |                     |              |              |
| IA13    | *  | *       |                |         | *AERODYNAMIC EFFECT       | *            |         | *D TUNNEL (A) *               |                     |              |              |
|         | *  | *       |                |         | *TS OF EMERGENCY A*       | *            |         | *                             | *                   |              |              |
|         | *  | *       |                |         | *BORT OF THE TANK *       | *            |         | *                             | *                   |              |              |
|         | *  | *       |                |         | *                         | *            |         | *                             | *                   |              |              |
| CAL     | - *WIND TUNNEL TEST *ORBITER, MODIFIED#MFS NOZZLE PRESSURE |         |                |         | #0.019                    | / *CAL       | /       | *R. B. HARDIN, R.             | *CMS-DR-2064        |              |              |
| BTWT    | - *OF THE 0.019 SPAC#2A,3                                  |         |                |         | *RE LOADS, WING HI*FORCE  | #0.9         | - *NR   | /                             | *R. BURROWS /ROCKW* |              |              |
| T14-053 | / *E SHUTTLE INTEGRA*                                      |         |                |         | *NGE MOMENTS, WING*       | #1.2         | *CAL    | -                             | *ELL - N. A. STRUZ* |              |              |
| IA36    | *TED VEHICLE IN TH*  |         |                |         | *PRESSURE DISTRIB *       | *            |         | *8-FOOT TRANSONYNSKI /CALSPAN | *                   |              |              |
|         | *E CALSPAN 8 FOOT *  |         |                |         | *UTIONS, AERODYNAM*       | *            |         | *IC WIND TUNNEL/C. A. SARVER  | *                   |              |              |
|         | *TRANSONIC WIND TUN*                                       |         |                |         | *IC STABILITY AND *       | *            |         | *W. M. HALE                   | *                   |              |              |
|         | *NNEL  | *       |                |         | *CONTROL                  | *            |         | --DMS                         | *                   |              |              |
|         | *  | *       |                |         | *                         | *            |         | *                             | *                   |              |              |
|         | *  | *       |                |         | *                         | *            |         | *                             | *                   |              |              |
| ARC     | - *  | *       |                |         | *                         | *            | *ARC    | /                             | *                   | *DMS-DR-2065 |              |
| 87SWT   | - *  | *       |                |         | *                         | *            | *ARC    | -                             | *                   | *            |              |
| 710     | / *  | *       |                |         | *                         | *            |         | *8-FOOT BY 7-FO*              | *                   |              |              |
| IA12C   | *  | *       |                |         | *                         | *            |         | *OT SUPERSONIC *              | *                   |              |              |
|         | *  | *       |                |         | *                         | *            |         | *WIND TUNNEL (U*              | *                   |              |              |
|         | *  | *       |                |         | *                         | *            |         | *NITARY)                      | *                   |              |              |
|         | *  | *       |                |         | *                         | *            |         | *                             | *                   |              |              |

WORK IN PROCESS  
WIND TUNNEL TEST / DMS DATA PROCESSING

| TEST ID    | REPORT TITLE                           | TESTED              | PURPOSE             | TYPE OF TEST | MODEL SCALE | TESTING MACH RANGE | COGNIZANT PERSONNEL                | BASIC PUBLICATIONS OR COMMENTS |
|------------|--|---------------------|---------------------|--------------|-------------|--------------------|------------------------------------|--------------------------------|
| NRLAD      | - EFFECTS OF THE AII-89B (2A) ORBITER  | #EFFECTS OF FERRY   | #FORCE              | #0.0405 /    | *NR         | /                  | #R. MENNELL / ROCKWELL/DMS-DR-2068 |                                |
| LSWT       | - #R BREATHING PROFILE                 | #ENGINE NACELLE LOC | #                   | #0.20 -      | *NRLAD      | -                  | *ELL                               | *                              |
| T08        | /#ELION SYSTEM ON S*                   | #OUPING AND LOCATI* | #                   |              |             |                    | #LOW SPEED WIND#D. A. SARVER       | *                              |
| OAT1A      | #PACE SHUTTLE ORBI*                    | #ON                 | #                   |              |             |                    | #W. M. HALE                        | *                              |
| CR-128,797 | #ER SUBSONIC STAB*                     | #                   | #                   |              |             |                    | #-DMS                              | *                              |
|            | *ILITY AND CONTROL*                    | #                   | #                   |              |             |                    |                                    | *                              |
|            | *CHARACTERISTICS *                     | #                   | #                   |              |             |                    |                                    | *                              |
|            | *#(OA71A)                              | #                   | #                   |              |             |                    |                                    | *                              |
|            | *                                      | #                   | #                   |              |             |                    |                                    | *                              |
| ARC        | - #RESULTS OF TESTS                    | #MODEL 32-0         | #OBTAIN STABILITY   | #0.015 /     | *ARC        | /                  | #T. J. DZIUBALA, M#DMS-DR-2071     |                                |
| 3.5HWT     | - #OF 0.010- AND 0.015                 | #MODEL 49-0         | #AND CONTROL CHARA* | #0.010 /     | *ARC        | -                  | #. D. MILAM/ROCKWE*                |                                |
| 168        | /#15-SCALE MODELS OR                   | #                   | #CTERISTICS FOR TH* | #5.3 -       |             |                    | #3.5-FOOT HYPER#L INTERNATIONAL *  |                                |
| OA23       | #F SPACE SHUTTLE O*                    | #E 3A BASELINE      | #                   | #10.3        |             |                    | #SONIC WIND TUN#J.W. CLEARY, J. A* |                                |
| CR-128,799 | #RBITER CONFIGURAT*                    | #VEHICLE CONFIGURA* | #                   |              |             |                    | #NEL #. MELLENTHIN/NASA*           |                                |
|            | *IONS 3 AND 3A IN *                    | #TION               | #                   |              |             |                    | #AMES                              | *                              |
|            | *THE AMES RESEARCH*                    | #                   | #                   |              |             |                    | #B. W. MYERS                       | *                              |
|            | *CENTER 3.5-FOOT *                     | #                   | #                   |              |             |                    | #-DMS                              | *                              |
|            | *HYPERSONIC WIND T*                    | #                   | #                   |              |             |                    |                                    | *                              |
|            | #UNNEL (OA23)                          | #                   | #                   |              |             |                    |                                    | *                              |
|            | *                                      | #                   | #                   |              |             |                    |                                    | *                              |
| LARC       | - #EFFECTS OF REACTI                   | #MODEL 42-0 OF THE  | #OBTAIN THE DETAIL  | #0.015 /     | *LARC       | /                  | #J. J. DAILEDA, J#DMS-DR-2073      |                                |
| UPWT       | - #ON CONTROL SYSTEM                   | #VLT0-000139B SSV   | #ED EFFECTS THAT R* | #            |             |                    | #HN MARROQUIN                      | *                              |
| 1043       | /#JET SIMULATION O                     | #RBITER CONFIGUR    | #CS JET FLOW INTER* | #            |             |                    | #UNITARY PLAN W#J. E. VAUGHN       | *                              |
| OAT0       | #N THE STABILITY                       | #ATION 3            | #ACTIONS HAVE ON S* | #            |             |                    | #IND TUNNEL #A. T. KAVANAUGH       | *                              |
| CR-134,870 | #AND CONTROL CHARA*                    | #                   | #UPERSONIC STABILI* | #            |             |                    | #-DMS                              | *                              |
|            | *CTERISTICS OF A D*                    | #                   | #TY AND CONTROL CH* | #            |             |                    |                                    | *                              |
|            | *.015 SCALE SPACE *                    | #                   | #ARACTERISTICS OF # | #            |             |                    |                                    | *                              |
|            | #SHUTTLE MODEL *                       | #                   | #THE SPACE SHUTTLE# | #            |             |                    |                                    | *                              |
|            | *TESTED IN THE LAN*                    | #                   | #VEHICLE            | #            |             |                    |                                    | *                              |
|            | #LEY RESEARCH CEN*                     | #                   | #                   | #            |             |                    |                                    | *                              |
|            | *TER UNITARY PLAN *                    | #                   | #                   | #            |             |                    |                                    | *                              |
|            | #WIND TUNNEL *                         | #                   | #                   | #            |             |                    |                                    | *                              |
|            | *                                      | #                   | #                   | #            |             |                    |                                    | *                              |
| NRLAD      | - #EFFECTS OF THE AII-89B SPACE SHUTTL | #INVESTIGATE THE O* | #                   | #0.165-      | *NR         | /                  | #BRUCE W. CAMERON, #DMS-DR-2074    |                                |
| LSWT       | - #R BREATHING ENGIN                   | #E ORBITER FERRY    | #RBITER WING PRESS* | #            | *NRLAD      | -                  | *JR. /RI                           | *                              |
| T09        | /#E PLUMES ON SSV                      | #ONFIGURATION       | #URE DISTRIBUTION * | #            |             |                    | #LOW SPEED WIND#S. W. BROWN        | *                              |
| OAT7A      | #RBITER SUBSONIC W*                    | #                   | #RESULTING FROM FI* | #            |             |                    | #TUNNEL #DMS                       | *                              |
|            | *ING PRESSURE DIST*                    | #                   | #VE UNDER-WING ENG* | #            |             |                    |                                    | *                              |
|            | #RIBUTIONS *                           | #                   | #INE NACELLE FLUME# | #            |             |                    |                                    | *                              |
|            | *                                      | #                   | #S                  | #            |             |                    |                                    | *                              |
|            | *                                      | #                   | #                   | #            |             |                    |                                    | *                              |

WORK IN PROCESS

| TEST ID     | REPORT TITLE          | CONFIGURATIONS TESTED   | TEST PURPOSE | TYPE OF TEST | SCALE #                | TEST MACH RANGE    | TESTING AGENCY                  | COGNIZANT PERSONNEL | BASIC PUBLICATIONS OR COMMENTS |
|-------------|-----------------------|---|--------------|--------------|------------------------|--------------------|---------------------------------|---------------------|--------------------------------|
| ARC 66SWT   | - *                   | *SHUTTLE ORBITER/E TO DETERMINE LOCAL PRESSURE  | *PRESSURE    | *0.015       | / *ARC                 | /                  | #B. J. FRICKEN                  | #DMS-DR-2077        |                                |
| 630         | /*                    | *T/2 SRM *L PRESSURE DISTRIBUTION ON THE ORB  | *PRESSURE    | *            | *ARC                   | -                  | *-DMS                           | *                   |                                |
| IA29        | *                     | *ENT PRESSURE MODE*BITER FUSELAGE FOX   | *            | *            | *6-FOOT BY 6-FOOT      |                    |                                 | *                   |                                |
| OA63        | *                     | *L 36-OTS #R ASCENT FLIGHT TEST   | *            | *            | *OT SUPERSONIC         | *                  |                                 | *                   |                                |
|             | *                     | * SUPPORT VEHICLE*  | *            | *            | *WIND TUNNEL           | *                  |                                 | *                   |                                |
|             | *                     | * VENTING STUDIES *   | *            | *            | *                      | *                  |                                 | *                   |                                |
|             | *                     | *   | *            | *            | *                      | *                  |                                 | *                   |                                |
| LARC 201HTS | - *                   | *0189B-139B (MODIFIED) EFFECTS OF TPS THERMAL IRREGULARITIES                          | *FORCE       | *0.01        | / *LARC                | /                  | #G.C.ASHBY, JR./NAS#DMS-DR-2079 |                     |                                |
| 441         | /*                    | *D NOSE) *LE IRREGULARITIES*  | *PRESSURE    | *6.0         | - *LARC                | -                  | *A,LARC                         | *                   |                                |
| LA15        | *                     | * EXPLORE POSSIBLE * BOUNDARY LAYER SEPARATION  | *            | *6.0         | *20-INCH HYPERSONIC    | J. E. VAUGHN       |                                 | *                   |                                |
|             | *                     | *PARATION HYSTERESIS*   | *            | *            | *SONIC TUNNEL (MACH 6) | -DMS               |                                 | *                   |                                |
|             | *                     | *S EFFECT *   | *            | *            | *                      |                    |                                 | *                   |                                |
|             | *                     | *   | *            | *            | *                      |                    |                                 | *                   |                                |
| NRLAD       | -                     | *EFFECTS OF AIR BRAKE-89B SPACE SHUTTLE*INVESTIGATE ORBIT*                            | *            | *0.0405      | / *NR                  | /                  | #T. SOARD /RI                   | #DMS-DR-2080        |                                |
| LSWT        | -                     | *EATING ENGINE PLANE ORBITER FERRY CARRIER WING PRESSURE *                            | *            | *0.20        | - *NRLAD               | -                  | *S. W. BROWN                    | *                   |                                |
| 713         | /*                    | *UMES ON SSV ORBITER CONFIGURATION *DISTRIBUTIONS RES*                                | *            | *            | *LOW SPEED WIND        | -DMS               |                                 | *                   |                                |
| OA758       | *                     | *ER SUBSONIC WING * MULTING FROM NACEL*   | *            | *            | *TUNNEL                | *                  |                                 | *                   |                                |
|             | *                     | *PRESSURE DISTRIBUTION *LE FLUMES ABOVE A*  | *            | *            | *                      |                    |                                 | *                   |                                |
|             | *                     | *TION *ND BELOW THE WING*   | *            | *            | *                      |                    |                                 | *                   |                                |
|             | *                     | *   | *            | *            | *                      |                    |                                 | *                   |                                |
| NRLAD       | -                     | *LANDING PRESSURE *-140 A/B SPACE SHUTTLE PRESSURE LOADS DATA*PRESSURE                | *            | *0.2         | - *NR                  | /                  | #T. L. SOARD, B. W./DMS-DR-2081 |                     |                                |
| LSWT        | -                     | *LOADS OF THE -140 SHUTTLE ORBITER *TA IN GROUND EFFECT                               | *            | *            | - *NRLAD               | -                  | *. CAMERON /ROCKWE              |                     |                                |
| 711         | /*A/B SPACE SHUTTLE * | *CT *   | *            | *            | *LOW SPEED WIND        | ALL                |                                 | *                   |                                |
| OA69        | *                     | *E DETERMINED IN *  | *            | *            | *TUNNEL                | #H. C. ZIMMERLE    |                                 | *                   |                                |
|             | *                     | *TEST OA69 *  | *            | *            | *                      | *-DMS              |                                 | *                   |                                |
|             | *                     | *   | *            | *            | *                      |                    |                                 | *                   |                                |
| LARC        | -                     | *RESULTS OF INVESTIGATE SSV 140A/B ORBITER*TO DETERMINE SUPERSONIC TRIM AND STABILITY | *FORCE       | *1.015       | / *LARC                | /                  | #J.H.CAMPBELL,II, #DMS-DR-2083  |                     |                                |
| UPWT        | -                     | *ICATIONS (OA20) ORBITER *SONIC TRIM AND STABILITY                                    | *            | *2.5         | - *LARC                | -                  | *M.E.NICHOLS /ROCKWELL          |                     |                                |
| 1057        | /*N A 0.015-SCALE 1*  | *ABILITY CHARACTERISTICS FOR THE 140A/B ORBITER.                                      | *            | *4.6         | *UNITARY PLANE         | W/ROCKWELL         |                                 | *                   |                                |
| OA20        | *                     | *40 A/B *   | *            | *            | *IND TUNNEL            | #W.P.PHILLIPS /LAR |                                 | *                   |                                |
|             | *                     | *CONFIGURATION SPAN*  | *            | *            | *                      |                    |                                 | *                   |                                |
|             | *                     | *CE SHUTTLE VEHICLE*  | *            | *            | *                      |                    |                                 | *                   |                                |
|             | *                     | *E ORBITER MODEL 1*   | *            | *            | *                      |                    |                                 | *                   |                                |
|             | *                     | *N THE *  | *            | *            | *                      |                    |                                 | *                   |                                |
|             | *                     | *NASA/LANGLEY RESEARCH*   | *            | *            | *                      |                    |                                 | *                   |                                |
|             | *                     | *ARCH CENTER UNITA*   | *            | *            | *                      |                    |                                 | *                   |                                |
|             | *                     | *RY PLANE WIND TUNNEL*  | *            | *            | *                      |                    |                                 | *                   |                                |
|             | *                     | *EL *   | *            | *            | *                      |                    |                                 | *                   |                                |
|             | *                     | *   | *            | *            | *                      |                    |                                 | *                   |                                |

WORK IN PROCESS  
WIND TUNNEL TEST / DMS DATA PROCESSING

WORK IN PROCESS  
WIND TUNNEL TEST / DMS DATA PROCESSING

| TEST ID               | REPORT TITLE  | TESTED         | PURPOSE | TEST                     | TYPE OF TEST | MODEL SCALE | TESTING MACH RANGE                 | AGENCY               | COGNIZANT PERSONNEL | BASIC #PUBLICATIONS | #OR COMMENTS |
|-----------------------|---|----------------|---------|--------------------------|--------------|-------------|------------------------------------|----------------------|---------------------|---------------------|--------------|
| LARC                  | - *RESULTS OF INVEST*140A/B                                       |                |         | *VERIFY LONGITUDIN*      | * 0.015      | * LARC      | /                                  | * J. H. CAMPBELL III | *CMS-DR-2069        |                     |              |
| BTPT                  | - *IGATIONS ON AN O.*   |                |         | *AL AND LATERAL-CI*      | * LARC       | -           | * AND M. E. NICHOL *               |                      |                     |                     |              |
| 661                   | /*015-SCALE CONFIG*   |                |         | *ECTIONAL CHARACT*       | *            |             | *8-FOOT TRANSONIC/ROCKWELL INTERN* |                      |                     |                     |              |
| OA25                  | *RATION 140A/B SPA*   |                |         | *ERISTICS OF 140A/*      | *            |             | *IC PRESSURE TUNATIONAL            |                      |                     |                     |              |
|                       | *CE SHUTTLE ORBITE*   |                |         | *B ORBITER, DETERM*      | *NNEL        |             | *W. P. PHILLIPS/LA*                |                      |                     |                     |              |
|                       | *R MODEL (49-0) IN*   |                |         | *INE SURFACE DEFLE*      | *            |             | *NGLEY RESEARCH CE*                |                      |                     |                     |              |
|                       | *THE NASA/LANGLEY *   |                |         | *CTION EFFECTS ON *      | *            |             | *INTER                             |                      |                     |                     |              |
|                       | *RESEARCH CENTER *  |                |         | *EHICLE PERFORMAN*       | *            |             | *B. W. MYERS                       |                      |                     |                     |              |
|                       | *8-FOOT TRANSONIC *   |                |         | *CE, AND TO DETERM*      | *            |             | *-DMS                              |                      |                     |                     |              |
|                       | *PRESSURE TUNNEL (*   |                |         | *INE COMPONENT BUI*      | *            |             | *                                  |                      |                     |                     |              |
|                       | *OA25)  | *              |         | *LDUP EFFECTS *          | *            |             | *                                  |                      |                     |                     |              |
|                       | *   | *              |         | *                        | *            |             | *                                  |                      |                     |                     |              |
| LARC                  | - *   | 40-100 ORBITER |         | *EFFECTS OF WING-F*FORCE | *0.35 -      | * LARC      | /                                  | * B. SPENCER /NASA   | *CMS-DR-2091        |                     |              |
| BTPT                  | - *   |                |         | *ILLETT LEADING EDG*     | *1.2         | * LARC      | -                                  | * D. E. POUCHER      |                     |                     |              |
| 657/660               | /*  |                |         | *E CONFIGURATION *       | *            |             | *8-FOOT TRANSONIC-DMS              |                      |                     |                     |              |
| LA78                  | *   | *              |         | *                        | *            |             | *IC PRESSURE TU*                   |                      |                     |                     |              |
|                       | *   | *              |         | *                        | *            |             | *NNEL                              |                      |                     |                     |              |
|                       | *   | *              |         | *                        | *            |             | *                                  |                      |                     |                     |              |
| LARC                  | - *   | *              |         | *                        | *            |             | *LARC                              | /                    | * M. M. MANN        | *CMS-DR-2092        |              |
| 22HT                  | - *   | *              |         | *                        | *            |             | *LARC                              | -                    | *-DMS               |                     |              |
| 415                   | /*  | *              |         | *                        | *            |             | *22-INCH HELIUM*                   |                      |                     |                     |              |
| OA72                  | *   | *              |         | *                        | *            |             | *TUNNEL                            |                      |                     |                     |              |
|                       | *   | *              |         | *                        | *            |             | *                                  |                      |                     |                     |              |
| MSFC                  | - *   | *              |         | *                        | *            |             | *MSFC                              | /                    | * V. W. SPARKS      | *CMS-DR-2093        |              |
| 14TWT                 | - *   | *              |         | *                        | *            |             | *MSFC                              | -                    | * J. L. GLYNN       |                     |              |
| 585                   | /*  | *              |         | *                        | *            |             | *14-INCH TRISON*-DMS               |                      |                     |                     |              |
| 1A37B                 | *   | *              |         | *                        | *            |             | *IC WIND TUNNEL*                   |                      |                     |                     |              |
|                       | *   | *              |         | *                        | *            |             | *                                  |                      |                     |                     |              |
| LARC                  | - *FLUTTER TESTS (OS*BASIC WING AND 11*ACQUIRE EXPERIMENTAL FORCE |                |         | *                        | *            |             | *LARC                              | /                    | *MICHAEL A. KOTCH   | *CMS-DR-2094        |              |
| 26TBT                 | - #1) OF THE 0.02-SC#HZ INBD AND 13.5 *TAL FLUTTER BOUND*         |                |         | *                        | *            |             | *LARC                              | -                    | *A. T. KAVANAUGH    |                     |              |
| 545                   | /*ALE ORBITER WING #HZ OUTBD ELEVON *ARY DATA IN THE T*           |                |         | *                        | *            |             | *26-INCH TRANSONIC-DMS             |                      |                     |                     |              |
| OS1                   | *ELEVON SEMI-SPAN *ROTATIONAL FREQ *TRANSONIC FLIGHT *            |                |         | *                        | *            |             | *NIC BLOWDOWN TU*                  |                      |                     |                     |              |
| CR-134,073#MODEL 23-0 | *BASIC WING AND 11*REGIME TO SUPPORT*                             |                |         | *                        | *            |             | *UNNEL                             |                      |                     |                     |              |
|                       | * #HZ INBD AND 11 H *ANALYTICAL FLUTT *                           |                |         | *                        | *            |             | *                                  |                      |                     |                     |              |
|                       | * #Z OUTBOARD ELEVON*ER PREDICTIONS *                             |                |         | *                        | *            |             | *                                  |                      |                     |                     |              |
|                       | *ROTATIONAL FREQ *  |                |         | *                        | *            |             | *                                  |                      |                     |                     |              |
|                       | *   | *              |         | *                        | *            |             | *                                  |                      |                     |                     |              |

WORK IN PROCESS  
WIND TUNNEL TEST / CMS DATA PROCESSING

| TEST ID     | REPORT TITLE   | CONFIGURATIONS TESTED | TEST PURPOSE                         | TYPE OF TEST | SCALE #MACH RANGE | MODEL AGENCY                 | TESTING          | COGNIZANT PERSONNEL | BASIC PUBLICATIONS OR COMMENTS |
|-------------|--|-----------------------|--------------------------------------|--------------|-------------------|------------------------------|------------------|---------------------|--------------------------------|
| MSFC        | - *  | *                     | *                                    | *            | *                 | MSFC /                       | *V. W. SPARKS    | *CMS-DR-2095        |                                |
| 14WT        | - *  | *                     | *                                    | *            | *                 | MSFC -                       | *J. L. GLYNN     | *                   |                                |
| 581         | /*   | *                     | *                                    | *            | *                 | *14-INCH TRISON*-DMS         |                  |                     |                                |
| OA49        | *  | *                     | *                                    | *            | *                 | *IC WIND TUNNEL*             |                  |                     |                                |
| LARC        | - *  | *                     | *                                    | *            | *                 | LARC /                       | *B. W. MYERS     | *CMS-DR-2096        |                                |
| BVDHT       | - *  | *                     | *                                    | *            | *                 | LARC -                       | --DMS            | *                   |                                |
| 644         | /*   | *                     | *                                    | *            | *                 | *MACH 8 VARIABL*             |                  |                     |                                |
| CH13        | *  | *                     | *                                    | *            | *                 | *E-DENSITY HYPER*            |                  |                     |                                |
|             | *  | *                     | *                                    | *            | *                 | *SONIC TUNNEL *              |                  |                     |                                |
|             | *  | *                     | *                                    | *            | *                 | *                            | *                |                     |                                |
| NRLAD       | - *  | *                     | *                                    | *            | *                 | NR /                         | *M. M. HANN      | *CMS-DR-2097        |                                |
| LSWT        | - *  | *                     | *                                    | *            | *                 | NRLAD -                      | --DMS            | *                   |                                |
| 715         | /*   | *                     | *                                    | *            | *                 | *LOW SPEED WIND*             |                  |                     |                                |
| OA62        | *  | *                     | *                                    | *            | *                 | *TUNNEL *                    |                  |                     |                                |
|             | *  | *                     | *                                    | *            | *                 | *                            | *                |                     |                                |
| ARC         | - *  | *                     | *                                    | *            | *                 | HEAT-TRANS#0.006 /           | *W. M. HALE      | *CMS-DR-2098        |                                |
| 3.5HWT      | - *  | *                     | *                                    | *            | *                 | ARC -                        | --DMS            | *                   |                                |
| 172         | /*   | *                     | *                                    | *            | *                 | *5.3 -                       | *3.5-FOOT HYPER* |                     |                                |
| 1H15        | *  | *                     | *                                    | *            | *                 | *5.3                         | *SONIC WIND TUN* |                     |                                |
|             | *  | *                     | *                                    | *            | *                 |                              | *TEL             |                     |                                |
|             | *  | *                     | *                                    | *            | *                 |                              | *                |                     |                                |
| AEDC        | - *  | #22-OT                | *HEAT TRANSFER EFF*HEAT-TRANS#0.0175 | /            | *AEDC /           | *T. F. FOSTER, W.            | *DMS-DR-2099     |                     |                                |
| HWTB        | - *  | *                     | *ECTS                                | *            | *AEDC -           | *J. GRIFALL /ROCKW#          |                  |                     |                                |
| VA352       | /*   | *                     | *                                    | *            | *                 | *HYPERSONIC WINXELL          |                  |                     |                                |
| CH4B        | *  | *                     | *                                    | *            | *                 | *D TUNNEL (B) *D. A. SARVER  |                  |                     |                                |
|             | *  | *                     | *                                    | *            | *                 | *W. M. HALE                  |                  |                     |                                |
|             | *  | *                     | *                                    | *            | *                 | *-DMS                        |                  |                     |                                |
|             | *  | *                     | *                                    | *            | *                 | *                            |                  |                     |                                |
| AEDC        | - *PHASE CHANGE PAIR*ROCKWELL ORBITER/*DETERMINE INTERFE*HEAT-TRANS#0.0175 |                       |                                      | /            | *AEDC -           | *M. QUAN, C. CRAIG/RJ        | *DMS-DR-2100     |                     |                                |
| HWTB        | - *T TESTS ON ROCKWE*TANK (VL70-000139/*RENCE EFFECTS AND*                 |                       |                                      |              | *8.0 -            | *HYPERSONIC WIN*A. D. MARTIN |                  |                     |                                |
| VA289       | /*LL ORBITER/TANK A*VL78-000041)   |                       | *HEATING RATES ON *                  |              | *8.0              | *D TUNNEL (B) *-DMS          |                  |                     |                                |
| CH3A        | *ND ORBITER ALONE *ROCKWELL ORBITER(*AN ORBITER/TANK *                     |                       |                                      |              | *                 | *                            |                  |                     |                                |
| CH3B        | *CONFIGURATIONS *VL70-000139)  |                       | *CONFIGURATION AND*                  |              | *                 | *                            |                  |                     |                                |
| CR-134,075* | *  |                       | *ON AN ORBITER AL *                  |              | *                 | *                            |                  |                     |                                |
|             | *  |                       | *ONE, WITH AND WITH*                 |              | *                 | *                            |                  |                     |                                |
|             | *  |                       | *OUT TFS TILE SIMU*                  |              | *                 | *                            |                  |                     |                                |
|             | *  |                       | *LATION.                             |              | *                 | *                            |                  |                     |                                |
|             | *  |                       | *                                    |              | *                 | *                            |                  |                     |                                |

WORK IN PROCESS  
WIND TUNNEL TEST / CMS DATA PROCESSING

| TEST ID     | REPORT TITLE                      | TESTED                    | TEST PURPOSE | MODEL TEST | TYPE OF TEST | SCALE                             | TESTING MACH RANGE | COGNIZANT AGENCY | TEST CMS PERSONNEL | BASIC PUBLICATIONS OR COMMENTS |
|-------------|-----------------------------------|---------------------------|--------------|------------|--------------|-----------------------------------|--------------------|------------------|--------------------|--------------------------------|
| ARC         | - *RESULTS OF INVEST*OT+L+P1+A1+F | #EFFECTS OF VARIOUS FORCE | #0.010       | / *ARC     | /            | #M. T. PETROZZI                   | M#DMS-DR-2102      |                  |                    |                                |
| 3.5HWT      | - *IGATIONS ON A 0.0*             | *S ELEVON, RUDDER,*       | #7.3         | - *ARC     | -            | *. D. MILAM /RI J*                |                    |                  |                    |                                |
| 175         | /*10-SCALE MODEL OFF              | *ATTACHING STRUCT *       | * 7.3        |            |              | *3.5-FOOT HYPER* A. MELLENTHIN /* |                    |                  |                    |                                |
| IA15        | *THE *                            | *URES, FAIRINGS, *        | *            |            |              | *SONIC WIND TUN*ARC               |                    |                  |                    |                                |
|             | *CONFIGURATION 3'S*               | *AND MAIN PROPULSI*       | *            |            |              | *D. A. SARVER                     |                    |                  |                    |                                |
|             | *PACE SHUTTLE ORBIT*              | *ON ROCKET FLUMES *       | *            |            |              | *G. G. MCDONALD                   |                    |                  |                    |                                |
|             | *TER AND EXTERNAL *               | *ON LONGITUDINAL A*       | *            |            |              | *-DMS                             |                    |                  |                    |                                |
|             | *TANK IN THE NASA/*               | *ND LATERAL- *            | *            |            |              | *                                 |                    |                  |                    |                                |
|             | *AMES RESEARCH CEN*               | *DIRECTIONAL STABI*       | *            |            |              | *                                 |                    |                  |                    |                                |
|             | *TER 3.5-FOOT HYPER*              | *LITY CHARACTERIST*       | *            |            |              | *                                 |                    |                  |                    |                                |
|             | *SONIC WIND TUNNE*                | *ICS                      | *            |            |              | *                                 |                    |                  |                    |                                |
|             | *L (IA15)                         | *                         | *            |            |              | *                                 |                    |                  |                    |                                |
|             | *                                 | *                         | *            |            |              | *                                 |                    |                  |                    |                                |
|             | *                                 | *                         | *            |            |              | *                                 |                    |                  |                    |                                |
| MSFC        | - *                               | *                         | *            |            |              | *MSFC / *J. E. VAUGHN             | M#DMS-DR-2103      |                  |                    |                                |
| 14TWT       | - *                               | *                         | *            |            |              | *MSFC - *-DMS                     |                    |                  |                    |                                |
| 589         | /*                                | *                         | *            |            |              | *14-INCH TRISON*                  |                    |                  |                    |                                |
| IA26F       | *                                 | *                         | *            |            |              | *IC WIND TUNNEL*                  |                    |                  |                    |                                |
|             | *                                 | *                         | *            |            |              | *                                 |                    |                  |                    |                                |
| NRLAD       | - *                               | *                         | *            |            |              | *NR / *M. H. MANN                 | M#DMS-DR-2104      |                  |                    |                                |
| LSWT        | - *                               | *                         | *            |            |              | *NRLAD - *-DMS                    |                    |                  |                    |                                |
| 717         | /*                                | *                         | *            |            |              | *LOW SPEED WIND*                  |                    |                  |                    |                                |
| OA62B       | *                                 | *                         | *            |            |              | *TUNNEL *                         |                    |                  |                    |                                |
|             | *                                 | *                         | *            |            |              | *                                 |                    |                  |                    |                                |
| LARC        | - *                               | *                         | *            |            |              | *LARC / *                         | M#DMS-DR-2105      |                  |                    |                                |
| 8VDHT       | - *                               | *                         | *            |            |              | *LARC - *                         |                    |                  |                    |                                |
| 646/647     | /*                                | *                         | *            |            |              | *MACH 8 VARIABL*                  |                    |                  |                    |                                |
| IH17        | *                                 | *                         | *            |            |              | *E-DENSITY HYPER*                 |                    |                  |                    |                                |
|             | *                                 | *                         | *            |            |              | *SONIC TUNNEL *                   |                    |                  |                    |                                |
|             | *                                 | *                         | *            |            |              | *                                 |                    |                  |                    |                                |
| LARC        | - *                               | *                         | *            |            |              | *LARC / *                         | M#DMS-DR-2106      |                  |                    |                                |
| UPWT        | - *                               | *                         | *            |            |              | *LARC - *                         |                    |                  |                    |                                |
| 1046/1049/* | *                                 | *                         | *            |            |              | *UNITARY PLAN W*                  |                    |                  |                    |                                |
| LA14A       | *                                 | *                         | *            |            |              | *IND TUNNEL *                     |                    |                  |                    |                                |
|             | *                                 | *                         | *            |            |              | *                                 |                    |                  |                    |                                |
| LARC        | - *                               | *                         | *            |            |              | *LARC / *                         | M#DMS-DR-2107      |                  |                    |                                |
| 8VDHT       | - *                               | *                         | *            |            |              | *LARC - *                         |                    |                  |                    |                                |
| 653         | /*                                | *                         | *            |            |              | *MACH 8 VARIABL*                  |                    |                  |                    |                                |
| LA20        | *                                 | *                         | *            |            |              | *E-DENSITY HYPER*                 |                    |                  |                    |                                |
|             | *                                 | *                         | *            |            |              | *SONIC TUNNEL *                   |                    |                  |                    |                                |
|             | *                                 | *                         | *            |            |              | *                                 |                    |                  |                    |                                |

WORK IN PROCESS  
WIND TUNNEL TEST / DMS DATA PROCESSING

| TEST ID    | REPORT TITLE   | TESTED | TEST PURPOSE          | MODEL TEST | TYPE OF TEST                       | SCALE | TESTING MACH RANGE             | COGNIZANT AGENCY | TEST DMS PERSONNEL | BASIC #PUBLICATIONS OR COMMENTS |
|------------|--|--------|-----------------------|------------|------------------------------------|-------|--------------------------------|------------------|--------------------|---------------------------------|
| LARC       | - *RESULTS OF TESTS #826C9E26F8M7N25R5*#OBTAIN LOCAL PRES* |        |                       | # 0.015    | / *LARC                            | /     | #O. E. THORNTON AN#DMS-DR-2108 |                  |                    |                                 |
| UPWT       | - *(OA64 AND IA35) OAN116                                  |        | *SURE DISTRIBUTION*   | #2.5       | - *LARC                            | -     | #D. R. H. SPANGLER/*           |                  |                    |                                 |
| IA350A     | *#F AN 0.015-SCALE #826C9E26F8M7N25R5#S ON ORBITER FUSE*   |        |                       | #4.5       | *UNITARY PLAN W/ROCKWELL INTERNAT* |       |                                |                  |                    |                                 |
| 64         | *#MODEL (36-OTS) CF#N116S12T12                             |        | *LAGE TO SUPPORT V*   | *          | *IND TUNNEL                        |       | TIONAL                         |                  | *                  |                                 |
| CR- 134,00 | *#THE SPACE SHUTTL *                                       |        | *VENTING STUDIES AN*  | *          | *                                  |       | #B. W. MYERS                   |                  | *                  |                                 |
| TM-X       | *#E CONFIGURATION 1*                                       |        | *D TO DETERMINE EF*   | *          | *                                  |       | *-DMS                          |                  | *                  |                                 |
| 4          | *#40A/B IN THE NASA*                                       |        | *EFFECT OF ELEVON DE* | *          | *                                  |       | *                              |                  | *                  |                                 |
|            | *#LARC UNITARY FLAP*                                       |        | *FLECTIONS IN THE *   | *          | *                                  |       | *                              |                  | *                  |                                 |
|            | *#N WIND TUNNEL *  |        | *AFT PORTION OF TH*   | *          | *                                  |       | *                              |                  | *                  |                                 |
|            | *  |        | *#E ORBITER FUSELAG*  | *          | *                                  |       | *                              |                  | *                  |                                 |
|            | *  |        | *E                    | *          | *                                  |       | *                              |                  | *                  |                                 |
|            | *  |        | *                     | *          | *                                  |       | *                              |                  | *                  |                                 |
| LARC       | - *  | *      | *                     | *          | *LARC                              |       | / #J. E. VAUGHN                |                  | #DMS-DR-2109       |                                 |
| CF4        | - *  | *      | *                     | *          | *LARC                              |       | - #W. M. HALE                  |                  | *                  |                                 |
| CH45       | *  | *      | *                     | *          | *                                  |       | *-DMS                          |                  | *                  |                                 |
|            | *  | *      | *                     | *          | *                                  |       | *                              |                  | *                  |                                 |
| LARC       | - *  | *      | *                     | *          | *LARC                              |       | / #J. E. VAUGHN                |                  | #DMS-DR-2110       |                                 |
| CF4        | - *  | *      | *                     | *          | *LARC                              |       | - #W. M. HALE                  |                  | *                  |                                 |
| IH16       | *  | *      | *                     | *          | *                                  |       | *-DMS                          |                  | *                  |                                 |
|            | *  | *      | *                     | *          | *                                  |       | *                              |                  | *                  |                                 |
| LARC       | - *  | *      | *OBTAIN LOCAL PRES*   | *          | *LARC                              |       | / *                            |                  | #DMS-DR-2111       |                                 |
| UPWT       | - *  | *      | *SURE DISTRIBUTION*   | *          | *LARC                              |       | -                              |                  | *                  |                                 |
| IA35       | *  | *      | *S ON ORBITER FUSE*   | *          | *UNITARY PLAN W/                   |       | *                              |                  | *                  |                                 |
|            | *  | *      | *LAGE TO SUPPORT V*   | *          | *IND TUNNEL                        |       | *                              |                  | *                  |                                 |
|            | *  | *      | *VENTING STUDIES AN*  | *          | *                                  |       | *                              |                  | *                  |                                 |
|            | *  | *      | *D TO DETERMINE EF*   | *          | *                                  |       | *                              |                  | *                  |                                 |
|            | *  | *      | *EFFECT OF ELEVON DE* | *          | *                                  |       | *                              |                  | *                  |                                 |
|            | *  | *      | *FLECTIONS IN THE *   | *          | *                                  |       | *                              |                  | *                  |                                 |
|            | *  | *      | *AFT PORTION OF TH*   | *          | *                                  |       | *                              |                  | *                  |                                 |
|            | *  | *      | *#E ORBITER FUSELAG*  | *          | *                                  |       | *                              |                  | *                  |                                 |
|            | *  | *      | *E                    | *          | *                                  |       | *                              |                  | *                  |                                 |
|            | *  | *      | *                     | *          | *                                  |       | *                              |                  | *                  |                                 |
| AEDC       | - *  | *      | *                     | *          | *AEDC                              |       | / *                            |                  | #DMS-DR-2112       |                                 |
| IA57       | *  | *      | *                     | *          | *AEDC                              |       | - *                            |                  | *                  |                                 |
|            | *  | *      | *                     | *          | *                                  |       | *                              |                  | *                  |                                 |
| LARC       | - *  | *      | *                     | *          | *LARC                              |       | / *                            |                  | #DMS-DR-2113       |                                 |
| CFHT       | - *  | *      | *                     | *          | *LARC                              |       | - *                            |                  | *                  |                                 |
| 101        | /*   | *      | *                     | *          | *CONTINUOUS-FLOW                   |       | *                              |                  | *                  |                                 |
| OA85       | *  | *      | *                     | *          | *W HYPERSONIC T*                   |       | *                              |                  | *                  |                                 |
|            | *  | *      | *                     | *          | *TUNNEL                            |       | *                              |                  | *                  |                                 |
|            | *  | *      | *                     | *          | *                                  |       | *                              |                  | *                  |                                 |

WORK IN PROCESS  
WIND TUNNEL TEST / DMS DATA PROCESSING

| TEST   | TEST ID | REPORT TITLE  | CONFIGURATIONS TESTED | PURPOSE  | TYPE OF TEST     | MODEL #            | SCALE #              | TESTING MACH RANGE | AGENCY          | COGNIZANT TEST DMS PERSONNEL | BASIC PUBLICATIONS OR COMMENTS |
|--------|---------|---|-----------------------|----------|------------------|--------------------|----------------------|--------------------|-----------------|------------------------------|--------------------------------|
| NRLAD  |         |   | *                     | *        | *                | *NR                | /                    |                    | #D. A. SARVER   | #DMS-DR-2114                 |                                |
| LSWT   |         |   | *                     | *        | *                | *NRLAD             | -                    |                    | #G. G. MCDONALD | *                            |                                |
| 716    |         |   | *                     | *        | *                | #LOW SPEED WIND    | -DMS                 |                    |                 | *                            |                                |
| OAS6   |         |   | *                     | *        | *                | *TUNNEL            |                      |                    |                 | *                            |                                |
| ARC    | -       | *RESULTS OF INVEST*   | *VERIFY SUPERSONIC*   | *0.015   | / *ARC           | /                  | #M. T. PETROZZI      | AN#DMS-DR-2115     |                 |                              |                                |
| 3.5HWT | -       | *IGATIONS ON A 0.0*   | *STABILITY AND CO *   | *        | *ARC             | -                  | #D. M. D. MILAM/ROC* |                    |                 |                              |                                |
| 176    | /*      | *#15-SCALE MODEL (4*  | *NTROL CHARACTERIS*   | *        | #3.5-FOOT HYPER* | KWELL INTERNATION* |                      |                    |                 |                              |                                |
| OAB7   |         | *9-0) OF THE SPACE*   | *TICS, VERIFY CONT*   | *        | *SONIC WIND TUN  | AL                 |                      |                    |                 |                              |                                |
|        |         | *SHUTTLE ORBITER *  | *ROL SURFACE EFFEC*   | *        | *NEL             |                    | #J. A. MELLENTHIN/*  |                    |                 |                              |                                |
|        |         | *IN THE NASA/AMES *   | *TIVENESS AND INVE*   | *        | *                |                    | #AMES RESEARCH CEN*  |                    |                 |                              |                                |
|        |         | *3.5-FOOT HYPERSON*   | *STIGATE REYNOLDS *   | *        | *                |                    | #TER                 |                    |                 |                              |                                |
|        |         | *IC WIND TUNNEL (0*   | *NUMBER EFFECT *      | *        | *                |                    | *                    |                    |                 |                              |                                |
|        |         | *A87)   | *                     | *        | *                |                    | *                    |                    |                 |                              |                                |
|        |         | *   | *                     | *        | *                |                    | *                    |                    |                 |                              |                                |
|        |         | *   | *                     | *        | *                |                    | *                    |                    |                 |                              |                                |
| NRLAD  | -       | *EFFECT OF THE SIX*19C7F5J59W107E23*EFFECT OF THREE A*FORCE | *#0.015               | / *NR    | /                | #H. C. SMITH /RI   | #DMS-DR-2116         |                    |                 |                              |                                |
| TWT    | -       | *ENGINE AIR BREAT *V7R5X20 + NACELLE*IR BREATHING PROP*     | *0.5                  | - *NRLAD | -                | #D. A. SARVER      |                      |                    |                 |                              |                                |
| 278    | /*      | *HING PROPULSION S*RAKES                                    | *ULSION SYSTEM FER*   | *0.9     | *TRISONIC WIND   | #G. G. MCDONALD    |                      |                    |                 |                              |                                |
| OAS91  |         | *SYSTEM ON SPACE *  | *RY/FLIGHT TEST *     | *        | *TUNNEL          | #-DMS              |                      |                    |                 |                              |                                |
|        |         | *SHUTTLE ORBITER S*   | *CONFIGURATIONS ON*   | *        |                  |                    |                      |                    |                 |                              |                                |
|        |         | *UBSONIC AND TRANS*   | *TRANSONIC DRAG R *   | *        |                  |                    |                      |                    |                 |                              |                                |
|        |         | *ONIC STABILITY AN*   | *ISE, ELEVON EFFEC*   | *        |                  |                    |                      |                    |                 |                              |                                |
|        |         | *D CONTROL *  | *TIVENESS,            | *        |                  |                    |                      |                    |                 |                              |                                |
|        |         | *CHARACTERISTICS (*   | *LNG. STABILITY, *    | *        |                  |                    |                      |                    |                 |                              |                                |
|        |         | *OA91)  | *AND LAT-DIR STAB *   | *        |                  |                    |                      |                    |                 |                              |                                |
|        |         | *   | *OF THE -139B SHUT*   | *        |                  |                    |                      |                    |                 |                              |                                |
|        |         | *   | *TLE ORBITER *        | *        |                  |                    |                      |                    |                 |                              |                                |
|        |         | *   | *                     | *        |                  |                    |                      |                    |                 |                              |                                |
|        |         | *   | *                     | *        |                  |                    |                      |                    |                 |                              |                                |
|        |         | *   | *                     | *        |                  |                    |                      |                    |                 |                              |                                |
| LARC   | -       | *   | *                     | *        | *LARC            | /                  | *                    | #DMS-DR-2117       |                 |                              |                                |
| BDHT   | -       | *   | *                     | *        | *LARC            | -                  | *                    |                    |                 |                              |                                |
| 648    | /*      | *   | *                     | *        | *MACH 8 VARIABL* |                    |                      |                    |                 |                              |                                |
| CH14   | *       | *   | *                     | *        | *E-DENSITY HYPE* |                    |                      |                    |                 |                              |                                |
|        |         | *   | *                     | *        | *RSONIC TUNNEL * |                    |                      |                    |                 |                              |                                |
|        |         | *   | *                     | *        | *                |                    |                      |                    |                 |                              |                                |
|        |         | *   | *                     | *        |                  |                    |                      |                    |                 |                              |                                |
| LARC   | -       | *   | *                     | *        | *LARC            | /                  | *                    | #DMS-DR-2118       |                 |                              |                                |
| 8PTT   | -       | *   | *                     | *        | *LARC            | -                  | *                    |                    |                 |                              |                                |
| 667    | /*      | *   | *                     | *        | *8-FOOT TRANSON* |                    |                      |                    |                 |                              |                                |
| IA41   | *       | *   | *                     | *        | *IC PRESSURE TU* |                    |                      |                    |                 |                              |                                |
|        |         | *   | *                     | *        | *NNEL            | *                  |                      |                    |                 |                              |                                |
|        |         | *   | *                     | *        | *                |                    |                      |                    |                 |                              |                                |

**WORK IN PROCESS**  
**WIND TUNNEL TEST / DMS DATA PROCESSING**

| TEST ID     | REPORT TITLE  | TESTED | TEST PURPOSE                 | TEST | TYPE OF TEST | MODEL SCALE         | TESTING MACH RANGE | COGNIZANT AGENCY      | TEST DMS PERSONNEL | BASIC #PUBLICATIONS #OR COMMENTS |
|-------------|---|--------|------------------------------|------|--------------|---------------------|--------------------|-----------------------|--------------------|----------------------------------|
| LARC        | - *   | *      | *                            | *    | *            | #LARC               | /                  | *                     | *                  | #CMS-DR-2119                     |
| UPWT        | - *   | *      | *                            | *    | *            | #LARC               | -                  | *                     | *                  | *                                |
| 1056/1073/* | *   | *      | *                            | *    | *            | #UNITARY PLATE      | W*                 | *                     | *                  | *                                |
| IA42A       | *   | *      | *                            | *    | *            | #IND TUNNEL         | *                  | *                     | *                  | *                                |
| IA42B       | *   | *      | *                            | *    | *            | *                   | *                  | *                     | *                  | *                                |
| LARC        | - *INVESTIGATION OF *ORBITER                                  |        | EFFECT OF SPEEDBREAKER FORCE | *    | 0.015        | #R.I.               | /                  | *V. W. SPARKS         |                    | #CMS-DR-2120                     |
| BTFT        | - *AERODYNAMIC CHARA*   |        | WAKE AND BODY FLAP*          | *    | 0.35         | #LARC               | -                  | *V. W. SPARKS         |                    | *                                |
| 668         | /#CTERISTICS ORBITE*  |        | *                            | *    | 1.2          | #8-FOOT TRANSONIC   | -DMS               |                       |                    | *                                |
| OA106       | #R SPEEDBREAKER *   |        | *                            | *    | *            | #IC PRESSURE TUNNEL |                    |                       |                    | *                                |
|             | #AND BODY FLAP DEF*   |        | *                            | *    | *            | *                   |                    |                       |                    | *                                |
|             | #ECTIONS  | *      | *                            | *    | *            | *                   |                    |                       |                    | *                                |
|             | *   | *      | *                            | *    | *            | *                   |                    |                       |                    | *                                |
| LARC        | - #TRANSONIC AERODYNAMIC RI-140 A/B WITH V/DETERMINE EFFECT * |        | *                            | *    | 0.015        | #LARC               | /                  | *W. P. PHILLIPS       |                    | #CMS-DR-2121                     |
| BTFT        | - #AMIC INVESTIGATIO#ARIOUS BODY FLAPS#OF EXTENDING CENT*     |        | *                            | *    | 0.35         | #LARC               | -                  | *D. C. FREEMAN, JR.*  |                    | *                                |
| 669         | /#N OF CONFIGURATIO*  |        | #ER OF GRAVITY ON *          | *    | 1.2          | #8-FOOT TRANSONIC   | *V. W. SPARKS      |                       |                    | *                                |
| LA38        | #N MODIFICATIONS *  |        | #AERODYNAMIC *               | *    | *            | #IC PRESSURE TUNNEL | *V. W. SPARKS      |                       |                    | *                                |
|             | #TO RI-140A/B FOR *   |        | #CHARACTERISTICS OF *        | *    | *            | #NNEL               | -DMS               |                       |                    | *                                |
|             | #EXTENDING CENTER *   |        | #F RI-140 A/B *              | *    | *            | *                   |                    |                       |                    | *                                |
|             | #OF GRAVITY RANGE *   |        | *                            | *    | *            | *                   |                    |                       |                    | *                                |
|             | *   | *      | *                            | *    | *            | *                   |                    |                       |                    | *                                |
| MSFC        | - *INVESTIGATION OF #LAUNCH CONFIGURAT#DETERMINE EFFECT *     |        | *                            | *    | 0.004        | #R.I.               | /                  | *W. GARTON / ROCKWELL |                    | #DMS-DR-2123                     |
| 14TWT       | - #GAS SUPPLY STRUT #ION                                      |        | #OF GAS SUPPLY STR*          | *    | 0.9          | #MSFC               | -                  | *ELL INTERNATIONAL*   |                    | *                                |
| 588         | /#CONFIGURATION EFF#LAUNCH CONFIGURAT#UT CONFIGURATIONS*      |        | *                            | *    | 2.99         | #14-INCH TRISON     | *V. W. SPARKS      |                       |                    | *                                |
| 1A53        | #ECTS ON AFT AND #ION WITH STRUTS                             |        | #ON AFT AND *                | *    | *            | #IC WIND TUNNEL     | *V. W. SPARKS      |                       |                    | *                                |
|             | #BASE PRESSURE ENV#LAUNCH CONFIGURAT#BASE PRESSURE ENV*       |        | *                            | *    | *            |                     |                    |                       |                    | *                                |
|             | #IRONMENTS OF A D.*ION WITH ORBITER *IRONMENTS OF SPAC*       |        | *                            | *    | *            |                     |                    |                       |                    | *                                |
|             | #0.04 SCALE MODEL OF# ET GAS SUPPLY F#E SHUTTLE LAUNCH *      |        | *                            | *    | *            |                     |                    |                       |                    | *                                |
|             | #F THE SPACE #AIRINGS   |        | #VEHICLE                     | *    | *            |                     |                    |                       |                    | *                                |
|             | #SHUTTLE LAUNCH VE*   | *      | *                            | *    | *            |                     |                    |                       |                    | *                                |
|             | #HICLE  | *      | *                            | *    | *            |                     |                    |                       |                    | *                                |
|             | *   | *      | *                            | *    | *            |                     |                    |                       |                    | *                                |

WORK IN PROCESS  
WIND TUNNEL TEST / DMS DATA PROCESSING

| TEST ID                  | REPORT TITLE | TESTED | CONFIGURATIONS   | TEST PURPOSE | MODEL TEST  | TYPE OF SCALE  | TESTING MACH RANGE             | COGNIZANT AGENCY | BASIC TEST CMS PERSONNEL PUBLICATIONS OR COMMENTS |
|--------------------------|--------------|--------|--|--------------|---|--|--------------------------------|------------------|---|
| ARC 5.5WHT 100 1A16 CA26 | - * * * *    | *      | * DETERMINE SURFACE*<br>* STATIC PRESSURE *<br>* DISTRIBUTIONS ON *<br>* THE ORBITER FUSEL*<br>* ACE, FOR BOTH THE*<br>* ASCENT AND ENTRY *<br>* FLIGHT PHASES, E *<br>* TO SUPPORT ORBITER*<br>* VENTING STUDIES *<br>* * *   | *            | *ARC - * * * *  | *3.5-FOOT HYPER*<br>*SONIC WIND TUN*<br>*NEL * * * * | *                              | *DMS-DR-2124     |   |
| LARC 7422 0488           | - * * * *    | *      | *HYPERSONIC STABIL BODY ALONE (-140A) TO DETERMINE HYFE*<br>*ILITY AND CONTROL C/B)*<br>*CHARACTERISTICS AN ORBITER (-140A/B) AND CONTROL CHARA*<br># REYNOLDS NUMBER*<br>*EFFECTS OF THE ROK<br>*CKWELL SSV 140 A/*<br>#B ORBITER CONFIGU*<br>#RATION *<br>* * *  | *            | *0.004 / *R/I / *18.1 - *LARC - *21.6 * * * *           | *ASA-LARC * * * *                                    | *DAVID R. STONE /N*DMS-DR-2125 |                  |   |
| LARC CFHT 100 LA25       | - * * * *    | *      | *EFFECTS OF REACTI-139 ORBITER WITH EFFECT OF RCS JET*<br>*ON CONTROL SYSTEM* VARIOUS RCS JETS *S ON ORB. HYPERSONIC*<br>*JET SIMULATION O *<br>*IN THE HYPERSONIC *<br>*PERFORMANCE, STAB*<br>*ILITY AND CONTROL*<br>*CHARACTERISTICS *<br>*OF A .01 SCALE *<br>*SCALE ROCKWELL IN*<br>*TERNATIONAL 139B *<br>*ORBITER CONFIGURA*<br>#TION *<br>* * * | *            | * 0.01 / *LARC - *CONTINUOUS-FLOWASA-LARC *10.3 * * * * | *TOM BLACKSTOCK /N*DMS-DR-2126                       |                                |                  |   |
| LARC CFHT 102 LA35       | - * * * *    | *      | *REYNOLDS NUMBER E-139. B ORBITER WI*EFFECT OF REYNOLD*<br>*FFECTS AT MACH NUTH VARIOUS CONTROLS NUMBER ON ORBIT*<br>*MBER 10.3 ON AERO. DEFLECTIONS *ER AERO. CHARACTE*<br>#DYNAMIC *<br>*CHARACTERISTICS OF *<br>*F .01 SCALE 139-B*<br>*ORBITER *<br>* * *  | *            | * 0.01 / *LARC / *LARC - *J. E. VAUGHN *10.3 * * * *    | *PETET T. BERNOT #DMS-DR-2127                        |                                |                  |   |

WORK IN PROCESS  
WIND TUNNEL TEST / DMS DATA PROCESSING

| TEST ID | REPORT TITLE | TESTED              | CONFIGURATIONS           | TEST PURPOSE | TYPE OF TEST | SCALE #                     | TESTING MACH RANGE | MODEL AGENCY | COGNIZANT PERSONNEL | BASIC PUBLICATIONS |                                |
|---------|--------------|---------------------|--------------------------|--------------|--------------|-----------------------------|--------------------|--------------|---------------------|--------------------|--------------------------------|
| ARC     | - *          | *                   | *THE PRIMARY TEST *      |              |              |                             | * 0.03             | / *ARC       | -                   | *M. M. MANN        | *DMS-DR-2128                   |
| 11-747A | /*           | *                   | *OBJECTIVES ARE T *      |              |              |                             | *0.6               | - *          | *-DMS               | *                  |                                |
| 97-747B | /*           | *                   | *O OBTAIN CONFIGUR*      |              |              |                             | *3.5               | *            | *                   | *                  |                                |
| OA53    | *            | *                   | *ATION 140 A/B *         |              |              |                             | *                  | *            | *                   | *                  |                                |
| OA53A   | *            | *                   | *STABILITY AND CON*      |              |              |                             | *                  | *            | *                   | *                  |                                |
| OA53B   | *            | *                   | *TROL CHARACTERIST*      |              |              |                             | *                  | *            | *                   | *                  |                                |
| OA53C   | *            | *                   | *ICS, CONTROL SURF*      |              |              |                             | *                  | *            | *                   | *                  |                                |
|         | *            | *                   | *ACE EFFECTIVENESS*      |              |              |                             | *                  | *            | *                   | *                  |                                |
|         | *            | *                   | *CONTROL SURFACE H*      |              |              |                             | *                  | *            | *                   | *                  |                                |
|         | *            | *                   | *INGE MOMENTS, AND*      |              |              |                             | *                  | *            | *                   | *                  |                                |
|         | *            | *                   | *VERTICAL TAIL PA *      |              |              |                             | *2                 | *            | *                   | *                  |                                |
|         | *            | *                   | *NEL LOADS.              |              |              |                             | *                  | *            | *                   | *                  |                                |
|         | *            | *                   | *                        |              |              |                             | *                  | *            | *                   | *                  |                                |
| ARC     | - *          | *SSV 4 CONFIG MCR * |                          |              |              | *OBTAIN PRESSURE D*PRESSURE |                    | * 0.030      | / *ARC              | /                  | *R. L. GILLENS / R*DMS-DR-2129 |
| 97-7161 | /*           | #0200               | *ISTRIBUTIONS ON I*FORCE |              |              |                             | *1.55              | - *          | *ROCKWELL           | *                  |                                |
| IA14B   | *            | *                   | *INTEGRATED LAUNCH *     |              |              |                             | *2.2               | *            | *F. CHEE / ROCKWELL | *                  |                                |
|         | *            | *                   | *VEHICLE. FORCE *        |              |              |                             | *                  | *            | *L                  | *                  |                                |
|         | *            | *                   | *DATA WERE ALSO TA*      |              |              |                             | *                  | *            | *H. C. ZIMMERLE     | *                  |                                |
|         | *            | *                   | *KEN.                    |              |              |                             | *                  | *            | *-DMS               | *                  |                                |
|         | *            | *                   | *                        |              |              |                             | *                  | *            | *                   | *                  |                                |
| ARC     | - *          | *SSV 4 CONFIG MCR * |                          |              |              | *OBTAIN PRESSURE D*         |                    | * 0.030      | / *ARC              | /                  | *R. L. GILLENS / R*DMS-DR-2130 |
| 11-7160 | /*           | #0200               | *ISTRIBUTIONS ON O*FORCE |              |              |                             | *0.6               | - *          | *ROCKWELL           | *                  |                                |
| OA22A   | *            | *                   | *RBITER ALONE. FO*       |              |              |                             | *0.9               | *            | *F. CHEE / ROCKWELL | *                  |                                |
|         | *            | *                   | *RCE DATA WERE *         |              |              |                             | *                  | *            | *L                  | *                  |                                |
|         | *            | *                   | *ALSO TAKEN.             |              |              |                             | *                  | *            | *H. C. ZIMMERLE     | *                  |                                |
|         | *            | *                   | *                        |              |              |                             | *                  | *            | *-DMS               | *                  |                                |
|         | *            | *                   | *                        |              |              |                             | *                  | *            | *                   | *                  |                                |
| ARC     | - *          | *SSV 4 CONFIG MCR * |                          |              |              | *OBTAIN PRESSURE D*PRESSURE |                    | * 0.030      | / *ARC              | -                  | *R. L. GILLENS / R*DMS-DR-2131 |
| 97-7160 | /*           | #0200               | *ISTRIBUTIONS ON O*FORCE |              |              |                             | *1.55              | - *          | *ROCKWELL           | *                  |                                |
| OA22B   | *            | *                   | *RBITER ALONE. FO*       |              |              |                             | *2.2               | *            | *F. CHEE / ROCKWELL | *                  |                                |
|         | *            | *                   | *RCE DATA WERE *         |              |              |                             | *                  | *            | *L                  | *                  |                                |
|         | *            | *                   | *ALSO TAKEN              |              |              |                             | *                  | *            | *H. C. ZIMMERLE     | *                  |                                |
|         | *            | *                   | *                        |              |              |                             | *                  | *            | *-DMS               | *                  |                                |
|         | *            | *                   | *                        |              |              |                             | *                  | *            | *                   | *                  |                                |

TABLE 2.4.2-1  
SPACE SHUTTLE FACILITY WIND TUNNEL SUMMARY

SPACE SHUTTLE FACILITY WIND TUNNEL SUMMARY

| TEST CODE | FACILITY | SUBFACILITY | TEST NO. | NASA SERIES NO. | DMS-CR-    | PUBLICATION DATE |
|-----------|----------|-------------|----------|-----------------|------------|------------------|
| TL        | AEDC     |             |          | IA57            | 2112       | IN PROCESS       |
| TM        | AEDC     | MWTB        | VA289    | CH3A            | 2100       | IN PROCESS       |
| TK        | AEDC     | MWTB        | VA352    | CH4B            | 2099       | IN PROCESS       |
| TJ        | AEDC     | SWTA        | 323      | IA13            | 2162       | IN PROCESS       |
| B3        | ARC      |             | 11-7160  | OA22A           | 2130       | IN PROCESS       |
| EJ        | ARC      |             | 11-747A  | OA53            | 2128       | IN PROCESS       |
| B2        | ARC      |             | 97-7161  | IA14B           | 2129       | IN PROCESS       |
| B4        | ARC      |             | 97-7160  | OA22B           | 2131       | IN PROCESS       |
| DU        | ARC      | LSWT        | 712      | OA71C           | 2086       | IN PROCESS       |
| B-        | ARC      | 11TWT       |          | IA9             | 2032, V-01 | NOV., 1973       |
| BL        | ARC      | 11TWT       | 686      | IA7             | 2024       | AUGUST, 1973     |
| B1        | ARC      | 11TWT       | 716      | IA14A           | 2084       | IN PROCESS       |
| B1        | ARC      | 3.5HWT      | 147      | OA4             | 2007       | MARCH, 1973      |
| B3        | ARC      | 3.5HWT      | 157      | OA11A           | 2044       | OCT., 1973       |
| BX        | ARC      | 3.5HWT      | 160      | OA11B           | 2059       | IN PROCESS       |

## SPACE SHUTTLE FACILITY WIND TUNNEL SUMMARY

| TEST CODE | FACILITY | SUBFACILITY | TEST NO. | NASA SERIES NO. | DMS-DR- | PUBLICATION DATE |
|-----------|----------|-------------|----------|-----------------|---------|------------------|
| BY        | ARC      | 3.5HWT      | 163      | OA58            | 2060    | IN PROCESS       |
| B5        | ARC      | 3.5HWT      | 167      | OA73            | 2082    | DEC., 1973       |
| B6        | ARC      | 3.5HWT      | 168      | OA23            | 2071    | IN PROCESS       |
| B7        | ARC      | 3.5HWT      | 169      | IA10            | 2078    | JAN., 1974       |
| B9        | ARC      | 3.5HWT      | 171      | OH10            | 2085    | IN PROCESS       |
| B8        | ARC      | 3.5HWT      | 172      | IH15            | 2098    | IN PROCESS       |
| EG        | ARC      | 3.5HWT      | 175      | IA15            | 2102    | IN PROCESS       |
| EF        | ARC      | 3.5HWT      | 176      | OA87            | 2115    | IN PROCESS       |
| EM        | ARC      | 3.5HWT      | 180      | IA16            | 2124    | IN PROCESS       |
| EB        | ARC      | 66SWT       | 630      | IA29            | 2077    | IN PROCESS       |
| BH        | ARC      | 66SWT       | 650      | OA3             | 2009    | JUNE, 1973       |
| BT        | ARC      | 66SWT       | 716      | OA43            | 2050    | NOV., 1973       |
| BZ        | ARC      | 87SWT       | 710      | IA12C           | 2065    | IN PROCESS       |
| BJ        | ARC      | 97SWT       | 616      | IA2             | 2013    | IN PROCESS       |
| BV        | ARC      | 97SWT       | 750      | IA12B           | 2048    | IN PROCESS       |
| UP        | CAL      | BTWT        | TS4-053  | IA36            | 2064    | IN PROCESS       |

## SPACE SHUTTLE FACILITY WIND TUNNEL SUMMARY

| TEST CODE | FACILITY | SUBFACILITY | TEST NO. | NASA SERIES NO. | CMS-DR-   | PUBLICATION DATE |
|-----------|----------|-------------|----------|-----------------|-----------|------------------|
| QC        | LARC     |             | 7422     | OA88            | 2125      | IN PROCESS       |
| PX        | LARC     | CFHT        | 100      | LA25            | 2126      | IN PROCESS       |
| QI        | LARC     | CFHT        | 101      | OA85            | 2113      | IN PROCESS       |
| QU        | LARC     | CFHT        | 102      | LA35            | 2127      | IN PROCESS       |
| OZ        | LARC     | CFHT        | 85       | LA3             | 2031      | JUNE, 1973       |
| OT        | LARC     | CFHT        | 89       | MA4             | 2008      | JAN., 1973       |
| OT        | LARC     | CFHT        | 89       | MA4             | 2008,R-01 | MAY, 1973        |
| PD        | LARC     | CFHT        | 96       | LA11            | 2066      | NOV., 1973       |
| QM        | LARC     | CF4         |          | IH18            | 2110      | IN PROCESS       |
| QS        | LARC     | CF4         |          | CH45            | 2109      | IN PROCESS       |
| PT        | LARC     | LTPT        | 130      | LA9             | 2056      | NOV., 1973       |
| PP        | LARC     | LTPT        | 138      | OA17            | 2058      | IN PROCESS       |
| PU        | LARC     | LTPT        | 141      | LA23            | 2070      | OCT., 1973       |
| QS        | LARC     | UPWT        |          | IA35            | 2111      | IN PROCESS       |
| Q4        | LARC     | UPWT        |          | IA350A          | 2108      | IN PROCESS       |
| OQ        | LARC     | UPWT        | 1002     | MA5             | 2001      | NOV., 1972       |
| OY        | LARC     | UPWT        | 1007     | OA7             | 2014      | MARCH, 1973      |

## SPACE SHUTTLE FACILITY WIND TUNNEL SUMMARY

| TEST CODE | FACILITY | SUBFACILITY | TEST NO.  | NASA SERIES NO. | DMS-DR- | PUBLICATION DATE |
|-----------|----------|-------------|-----------|-----------------|---------|------------------|
| P6        | LARC     | UPWT        | 1015      | LA10            | 2052    | NOV., 1973       |
| P6        | LARC     | UPWT        | 1023/1034 | LA8A            | 2054    | NOV., 1973       |
| PH        | LARC     | UPWT        | 1031      | MA7             | 2069    | JAN., 1974       |
| PN        | LARC     | UPWT        | 1035      | OA44            | 2057    | IN PROCESS       |
| PV        | LARC     | UPWT        | 1043      | OA70            | 2073    | IN PROCESS       |
| PG        | LARC     | UPWT        | 1046/1049 | LA14A           | 2106    | IN PROCESS       |
|           | LARC     | UPWT        | 1056/1073 | IA42A           | 2119    | IN PROCESS       |
| QZ        | LARC     | UPWT        | 1057      | OA20            | 2083    | IN PROCESS       |
| P1        | LARC     | UPWT        | 995 /1014 | LA4             | 2033    | JULY, 1973       |
| PH        | LARC     | 20HT6       | 441       | LA15            | 2079    | IN PROCESS       |
| ON        | LARC     | 22HT        | 405       | LA22            | 2034    | JULY, 1973       |
| OS        | LARC     | 22HT        | 409       | MA2             | 2003    | APRIL, 1973      |
| OT        | LARC     | 22HT        | 411       | LA2             | 2023    | JUNE, 1973       |
| P2        | LARC     | 22HT        | 413       | LA5             | 2036    | AUGUST, 1973     |
| PT        | LARC     | 22HT        | 415       | OA72            | 2092    | IN PROCESS       |
| PZ        | LARC     | 26TBT       | 544       | OS2             | 2067    | AUGUST, 1973     |
| GT        | LARC     | 26TBT       | 545       | OS1             | 2094    | IN PROCESS       |

## SPACE SHUTTLE FACILITY WIND TUNNEL SUMMARY

| TEST CODE | FACILITY | SUBFACILITY | TEST NO.  | NASA SERIES NO. | DMS-DR-    | PUBLICATION DATE |
|-----------|----------|-------------|-----------|-----------------|------------|------------------|
| OU        | LARC     | 8TPT        | 626       | LA1             | 2002       | MARCH, 1973      |
| P4        | LARC     | 8TPT        | 643       | LA6             | 2040       | AUGUST, 1973     |
| P5        | LARC     | 8TPT        | 644       | LA7             | 2041       | OCT., 1973       |
| PC        | LARC     | 8TPT        | 648       | LA17            | 2046       | AUGUST, 1973     |
| PS        | LARC     | 8TPT        | 655       | SA2F            | 2088       | IN PROCESS       |
| P5        | LARC     | 8TPT        | 657/660   | LA7B            | 2091       | IN PROCESS       |
| Q1        | LARC     | 8TPT        | 661       | OA25            | 2089       | IN PROCESS       |
|           | LARC     | 8TPT        | 667       | IA41            | 2118       | IN PROCESS       |
| Q2        | LARC     | 8TPT        | 668       | OA1D6           | 2120       | IN PROCESS       |
| QX        | LARC     | 8TPT        | 669       | LA38            | 2121       | IN PROCESS       |
| Q1        | LARC     | BVDHT       | 7648      | CH14            | 2117       | IN PROCESS       |
| QX        | LARC     | BVDHT       | 3619/3670 | CH40            | 2049       | JULY, 1973       |
| PA        | LARC     | BVDHT       | 4080/4105 | CH42A           | 2101       | JAN., 1974       |
| PB        | LARC     | BVDHT       | 624       | LA16            | 2043       | JUNE, 1973       |
| PO        | LARC     | BVDHT       | 644       | CH13            | 2096       | IN PROCESS       |
| PR        | LARC     | BVDHT       | 646/647   | 1H17            | 2105       | IN PROCESS       |
| PK        | LARC     | BVDHT       | 653       | LA20            | 2107       | IN PROCESS       |
| Q1        | LTV      | HSWT        | 458       | IA4             | 2015, V-01 | JULY, 1973       |

## SPACE SHUTTLE FACILITY WIND TUNNEL SUMMARY

| TEST CODE | FACILITY | SUBFACILITY | TEST NO. | NASA SERIES NO. | DMS-DR-    | PUBLICATION DATE |
|-----------|----------|-------------|----------|-----------------|------------|------------------|
| DD        | LTV      | 1520SWT     | S-081    | MA1             | 2004       | NOV., 1972       |
| .....     | .....    | .....       | .....    | .....           | .....      | .....            |
| 72        | MSFC     | 14TWT       | 545      | IA1B            | 2010       | MAY, 1973        |
| 79        | MSFC     | 14TWT       | 554      | SA1F            | 2012       | APRIL, 1973      |
| 76        | MSFC     | 14TWT       | 555      | OA1             | 2005       | NOV., 1972       |
| 77        | MSFC     | 14TWT       | 556      | IA1A            | 2006       | DEC., 1972       |
| 78        | MSFC     | 14TWT       | 558      | MA9F            | 2011       | APRIL, 1973      |
| 80        | MSFC     | 14TWT       | 565      | SA3F            | 2025       | MAY, 1973        |
| 81        | MSFC     | 14TWT       | 566      | IA31F           | 2026       | SEPT., 1973      |
| 82        | MSFC     | 14TWT       | 567      | IA32FB          | 2027       | IN PROCESS       |
| 84        | MSFC     | 14TWT       | 568      | OA47            | 2029       | MAY, 1973        |
| 83        | MSFC     | 14TWT       | 570      | IA31FB          | 2028       | IN PROCESS       |
| 85        | MSFC     | 14TWT       | 571      | IA6A            | 2039       | IN PROCESS       |
| 86        | MSFC     | 14TWT       | 572      | SA5F            | 2051       | AUGUST, 1973     |
| 90        | MSFC     | 14TWT       | 573      | IA31FC          | 2072       | JAN., 1974       |
| 87        | MSFC     | 14TWT       | 574      | OA48            | 2055, V-01 | SEPT., 1973      |
| 91        | MSFC     | 14TWT       | 578      | SA10F           | 2087       | IN PROCESS       |
| 88        | MSFC     | 14TWT       | 579/580  | IA37            | 2063       | NOV., 1973       |
| 92        | MSFC     | 14TWT       | 581      | OA49            | 2095       | IN PROCESS       |
| 93        | MSFC     | 14TWT       | 585      | IA37B           | 2093       | IN PROCESS       |
| 96        | MSFC     | 14TWT       | 588      | IA53            | 2123       | IN PROCESS       |

## SPACE SHUTTLE FACILITY WIND TUNNEL SUMMARY

| TEST CODE | FACILITY | SUBFACILITY | TEST NO. | NASA SERIES NO. | DMS-DR-    | PUBLICATION DATE |
|-----------|----------|-------------|----------|-----------------|------------|------------------|
| 94        | MSFC     | 14TWT       | 589      | IA26F           | 2103       | IN PROCESS       |
| DF        | NRLAD    | LSWT        | 689      | OA2             | 2016       | APRIL, 1973      |
| DG        | NRLAD    | LSWT        | 690      | OA5             | 2017       | APRIL, 1973      |
| CH        | NRLAD    | LSWT        | 693      | IA3             | 2018       | JUNE, 1973       |
| DI        | NRLAD    | LSWT        | 694      | OA6             | 2019       | JUNE, 1973       |
| DJ        | NRLAD    | LSWT        | 696      | OA9             | 2020       | JUNE, 1973       |
| DK        | NRLAD    | LSWT        | 698      | OA10            | 2022       | JUNE, 1973       |
| DL        | NRLAD    | LSWT        | 699      | OA45            | 2021, V-01 | NOV., 1973       |
| DM        | NRLAD    | LSWT        | 700      | OA14            | 2030       | AUGUST, 1973     |
| DN        | NRLAD    | LSWT        | 701      | OA16            | 2038       | IN PROCESS       |
| DO        | NRLAD    | LSWT        | 704      | OA18            | 2045       | SEPT., 1973      |
| DP        | NRLAD    | LSWT        | 705      | OA21A           | 2053, V-01 | DEC., 1973       |
| DS        | NRLAD    | LSWT        | 708      | OA71A           | 2068       | IN PROCESS       |
| DT        | NRLAD    | LSWT        | 709      | OA57A           | 2074       | IN PROCESS       |
| DQ        | NRLAD    | LSWT        | 711      | OA69            | 2081       | IN PROCESS       |
| DV        | NRLAD    | LSWT        | 713      | OA75B           | 2080       | IN PROCESS       |
| DW        | NRLAD    | LSWT        | 715      | OA62            | 2097       | IN PROCESS       |
| DX        | NRLAD    | LSWT        | 716      | OA86            | 2114       | IN PROCESS       |
| DZ        | NRLAD    | LSWT        | 717      | OA62B           | 2104       | IN PROCESS       |

SPACE SHUTTLE FACILITY WIND TUNNEL SUMMARY

| TEST<br>CODE | FACILITY | SUBFACILITY | TEST NO. | NASA<br>SERIES NO. | DMS-DR- | PUBLICATION DATE |
|--------------|----------|-------------|----------|--------------------|---------|------------------|
| DY           | NRLAD    | TWT         | 278      | OA91               | 2116    | IN PROCESS       |
| DR           | NRLAD    | 7TWT        | 278      | OA68               | 2061    | DEC., 1973       |

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